



*Making Proud Choices and Being a Responsible Adult*  
Program Evaluation Five-Year Summary Report

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## Executive Summary

### Introduction

**Overview.** This report describes the five-year evaluation findings from the Making Proud Choices (MPC) and Being a Responsible Adult (BART) programs implemented in Washington DC Charter Schools from the 2011-12 school year through the 2016-17 school year. This programming was made possible by funding support from Venture Philanthropy Partners (VPP).

Initially, the support from VPP was awarded to MetroTeen AIDS (MTA), a non-profit organization based in Washington DC whose work focused on HIV prevention services and HIV/AIDS services for youth in DC and the surrounding areas. MTA had provided comprehensive sexual health education in DC public schools since 2004. The funding support from VPP in 2011 allowed expansion of this programming into DC public charter schools. In February 2015, MTA entered into a new strategic collaboration with Whitman-Walker Health (WWH), bringing their youth-focused expertise to the WWH health center. WWH assumed oversight of the VPP grant, as well as other MTA grants, and worked to maintain all of MTA's programs. Shattuck and Associates was retained as the external evaluator on the project by MTA for Years 1-4 and by WWH to complete the final program evaluation.

**Curricula.** MTA used two evidence-based curricula for their school-based instruction: *Making Proud Choices* (MPC) for middle-school students and *Becoming A Responsible Teen* (BART) for high school students. Making Proud Choices! (MPC) provides comprehensive education around HIV, sexually transmitted infections (STI), pregnancy, and substance abuse prevention. Its modules focus on goals and future plans, adolescent sexuality, and building knowledge and skills to prevent substance abuse and sexual risk-taking. The modules stress the benefits of abstinence and focus on building confidence and skills related to communication with partners.

Becoming A Responsible Teen (BART) is an HIV-prevention program that was designed for African American high school students. Like MPC, the program combines HIV education with behavior skills training related to prevention of sexually transmitted infections, pregnancy, and substance abuse. Through BART, students clarify values around sexual decisions and practice sexual risk-reduction skills.

Both programs consist of 8 modules. Modules were delivered by MTA staff once a week over eight weeks, during a designated class period in the school day. MTA worked directly with each DC Charter School administration on a Memorandum of Understanding that outlined the MPC or BART program implementation as well as the data that would be collected. In addition, MTA provided schools with an IRB-approved opt-out parental consent form to be distributed to parents of potential students prior to the start of the program.

### Evaluation Methods

**Evaluation Components.** The evaluation included both implementation and outcome components. The implementation evaluation focused on program delivery and fidelity as well as student and teacher engagement and satisfaction. Measurement tools included Facilitator

Feedback Forms, which were completed after each session by program facilitators to measure program delivery and modifications, as well as student and teacher engagement. Session observations were conducted each year by the external evaluators to look at program fidelity. Program satisfaction was measured using a survey that teachers completed after the curriculum was delivered and through post-test survey items for the students. A staff focus group was conducted each year to examine successes, challenges, and areas for program delivery improvement. These activities were not implemented after the merger with WWH.

**Design.** A single group pretest-posttest design was used for the outcome study. While a comparison group would provide stronger evidence of program effectiveness, this type of design was not seen as feasible. Based on MTA's past experience in working with DC schools, they anticipated difficulty in getting schools to agree to participate in a research project in which their school might serve as a comparison school without getting intervention. In addition, an experimental or quasi-experimental design would likely require opt-in or active consent. A previous project engaged in by MTA found that opt-in consent did not lead to a sample size sufficient for analysis. Given the existing evidence-base for the curricula, MTA felt that a single-group design with a focus on program implementation was appropriate.

**Analysis.** For the participant outcome study, analyses compared pretest to posttest changes in knowledge, attitudes, self-efficacy, and intentions related to sexual health, using linear mixed models to control for clustering within schools. Subgroup analyses were also conducted to determine differential effects by subgroup. In addition, a descriptive analysis of self-reported sexual behaviors is provided. Program aims originally proposed by MTA included a focus on building teacher and school capacity around sexual health; however, these were never fully realized. A descriptive summary of MTA efforts in these areas is provided.

### Implementation Evaluation Findings

Over the course of the grant, implementation of MPC and BART programming was suspended twice. First, program implementation was suspended in Fall 2013 when an internal audit revealed that MTA was providing services in schools that were not approved by their external IRB and in one school that served detained youth. After working with their external IRB, MTA received approval to resume programming again in February 2014 and to allow use of evaluation data collected for all students except for the data from the detained youth. In February 2015, MTA merged with Whitman Walker Health, and the program was put on hold a second time while WWH's IRB reviewed the program and the evaluation protocols. After receiving approval from the WWH IRB, programming resumed in the Fall 2015 under the direction of WWH.

Even with these challenges, A total of 59 MPC and 39 BART cohorts were implemented in 23 DC Charter Schools over the grant period. Other key findings from the implementation evaluation include:

- Matched data was available from 749 MPC students and 329 BART students.
- For MPC programs, the majority of sessions were implemented as planned; however, some program modifications were reported by facilitators and observed by S&A staff.

More modifications were reported for BART programs. For both programs, modifications were largely due to time constraints, which led to shortening or skipping some of the session activities.

- Program facilitators rated students as engaged, grasping program objectives, and able to complete program activities “most of the time.”
- Students were generally satisfied with the program and “agreed” to “strongly agreed” that they planned to use something they learned in the program to make a healthy decision.
- School teachers were generally present and engaged “most” to “all” of the time; however, staff noted that teacher engagement was primarily related to classroom management rather than engagement with the curriculum.
- Although feedback was received from only a small number of teachers (total n=24 from Years 1-3), those who provided feedback indicated that they were generally satisfied with the program.

### Outcome Evaluation Findings

**Changes in knowledge, attitudes, self-efficacy, and intentions.** MPC students showed significant positive increases in all 6 measured outcomes:

- Knowledge
- Attitudes about Unprotected Sex
- Attitudes about Condoms
- Condom Self-Efficacy
- Risky Behavior Refusal Self-efficacy
- Intentions

BART students showed a significant positive increase in 3 of 6 outcomes:

- Knowledge
- Condom Self-Efficacy
- Risky Behavior Refusal Self-Efficacy

**Subgroup differences.** A few differences in program effects were found by subgroup. With respect to program year, BART students in Year 4-5 and Year 6 had a significant increase in negative attitudes toward unprotected sex and increased condom self-efficacy, which were not found for earlier years. In addition, students in year 4-5 also had increased risky behavior refusal self-efficacy, which was not found in other years. These findings might reflect stronger program implementation by experienced facilitators in the later years of the program.

In some cases, significant subgroup differences were found at pretest, with the differences reduced or eliminated by posttest. These differences were found by gender as well as among students who had differences in baseline risky behavior (i.e., ever had sex or not). Girls in MPC and BART reported significantly less condom self-efficacy than boys at pretest. Girls in both programs had significant increases in condom self-efficacy at posttest, with BART girls reaching the level of boys at posttest.

BART students who had not had sex at pretest had less knowledge and lower condom self-efficacy before the program than students who had reported ever having sex. These students increased their knowledge and condom self-efficacy to the same levels as the students who had engaged in sex. Taken together with the gender differences, these findings suggest that the program benefitted some subgroups who had the most to gain from the program.

The last difference involved subgroups who were similar at pretest, but who showed differential benefit from the program. All BART students significantly increased knowledge as a result of the program; however, the increase was greater for non-black students as compared to black students. For BART students, risky behavior refusal self-efficacy increased for non-black students only, with no change for black students. It is not clear why this differential effect occurred.

**Behavior.** The data related to sexual behavior is presented descriptively because many of the items selected to measure behavior change did not adequately distinguish between pre-program behaviors and post-program behaviors. In addition, inconsistencies were found in the data, such as students who on the pretest reported that they had engaged in sex in the past but indicated that they never had sex at the posttest. About 20% of the middle school students and almost half of the high school students reported that they have had sex. Some reported additional risky behaviors, such as more than one partner, inconsistent birth control, and/or having used alcohol or drugs the last time they had sex.

### Success, Challenges, and Lesson Learned

Focus groups conducted with MTA staff identified successes, challenges, and lessons learned in a variety of areas. They identified the need for all staff to have a strong understanding of the project and the funder to increase staff buy-in to the project. They identified thorough program planning as a means to improve implementation and stressed the importance of thinking through staffing and respective roles and responsibilities, setting realistic deliverables, and establishing clear timelines for deadlines, such as IRB submissions. They noted that important factors to think through when staffing a project included consideration of additional work responsibilities outside the project, travel time between schools, and the availability of coverage if a facilitator is ill.

Focus group participants highlighted as a success having school staff who were committed to and passionate about delivering comprehensive sexual health education programs in the charter schools. Although a large team of program facilitators existed in the initial years due to the presence of Public Allies/AmeriCorps, staffing was later streamlined and a core team of facilitators emerged who remained constant during the later program years. At the time of the Year 4 focus group, the team felt that they had bonded over the rewarding, yet challenging task of delivering programs in the schools. However, they noted that over the years, staffing was not consistent, particularly at the director and management levels, which at times, left the team without the support they needed.

Although the facilitators enjoyed teaching the curricula, they noted that some content felt dated and some areas such as puberty for MPC students were not covered adequately. Because of the focus on program fidelity, program facilitators were instructed to deliver the curricula as designed; however, they found that students often had questions that were outside of the day's topic area and difficult to respond to within the time constraints. They recommended building in additional time for questions.

The staff noted that program delivery in charter schools is very challenging. Program staff need to work with the Local Education Agencies at each individual charter school to develop and sign a Memorandum of Understanding (MOU) for program implementation. This often required a significant amount of time and communication since some administrators did not always believe their students needed sexual health information. Staff learned that activities related to school recruitment, engagement, and relationship-building need to begin much earlier in the summer in order to have an MOU in place for the start of the school year. Staff also noted that each charter school has its own culture and identified that fitting into different school cultures can be difficult, especially around varying calendars between schools and different approaches to discipline and behavior management.

Focus group participants understood the need and desire to build school and teacher capacity around having supportive policies around sexual health and the ability to deliver sexual health programming. Although several efforts were made to build school and teacher capacity during the grant time period, these were not successful, largely due to turn-over in staff whose responsibilities were dedicated to these efforts. Staff shared that it was also difficult to schedule professional development activities for charter school teachers because each charter school operated on its own schedules. One planned day-long event was cancelled due to snow and was unable to be rescheduled. A co-teaching model, in which program facilitators would co-teach the curriculum with classroom teachers, was never fully implemented due to lack of a clearly defined vision, lack of staff training for how to implement this model, and lack of interest in the schools for this type of approach. Staff recognized that teachers need introductory preparation prior to co-teaching because many were not comfortable teaching sexual health education.

## Summary

This evaluation showed that the MPC and BART curricula can be used to impact sexual health knowledge, attitudes, confidence, and intentions in middle school and high school students. Their self-reports of engaging in sex as well as additional risky behaviors, such as more than one partner, inconsistent birth control, and/or having used alcohol or drugs the last time they had sex, underscore the ongoing need for comprehensive sexual health education for youth.

This report highlighted the challenges of program delivery in charter schools and summarized lessons learned offered by program staff about the curricula as well as about program delivery itself. These findings can be used to increase the impact of future sexual health programs.

# *Making Proud Choices and Being a Responsible Adult* Program Evaluation: Five-Year Summary Report

## Introduction

This report describes the five-year evaluation findings from the Making Proud Choices (MPC) and Being a Responsible Adult (BART) programs implemented in Washington DC Charter Schools from the 2011-12 school year through the 2016-17 school year. This programming was made possible by funding support from Venture Philanthropy Partners (VPP).

Initially, the support from VPP was awarded to MetroTeen AIDS (MTA), a non-profit organization based in Washington DC whose work focused on HIV prevention services and HIV/AIDS services for youth in DC and the surrounding areas. In February 2015, MTA entered into a new strategic collaboration with Whitman-Walker Health (WWH), bringing their youth-focused expertise to the WWH health center. MTA's employees, with the exception of its Executive Director, were brought under the WWH umbrella as part of this merger. WWH took on oversight of the VPP grant as well as other MTA grants and worked to maintain all of MTA's programs. Shattuck and Associates was retained as the external evaluator on the project by MTA for Years 1-3 and also by WWH to complete the five-year evaluation.

The major focus of this project was to impact the knowledge, attitudes, and behaviors related to sexual health of middle-school and high-school students in DC Charter Schools via the implementation of evidenced-based sexual health education curricula, which was delivered by MTA staff during the school day. The *Making Proud Choices* program (MPC) was implemented with middle-school students and the *Be a Responsible Adult* program (BART) was used with high-school students. Although the original conception of the proposed programming also included an aim to build teacher and school capacity to teach sexual health education and support access to information and resources around sexual and reproductive health, this aim was never fully realized.

This report will focus on summarizing the process and outcome evaluation results related to the delivery of MPC and BART programming in the charter schools. As part of the process evaluation, the report includes a descriptive summary of the project timeline and events. The report also includes a discussion of the project's strengths, challenges, and lessons learned.

## Methods

### Evaluation Design

In its Subgrantee Evaluation Plan (SEP), MTA proposed a single group pretest-posttest design, with a focus on an implementation study to provide insight into the process of scaling up the current intervention into the Washington D.C. charter schools. This decision was based on the existing strong evidence base for the MPC and BART programs (discussed below) and on MTA's experience conducting research in DC schools. They anticipated great difficulty in getting schools to participate in a research project in which their school might serve as a comparison school without getting intervention. In addition, an experimental or quasi-experimental design would likely require opt-in or active consent. Based on MTA's past experiences, opt-in consent would not lead to sufficient sample size for analysis. MTA indicated that this evaluation would fall into the CNCS classification of preliminary level of evidence, based on the fact that they were conducting a single group study with no comparison group.

### Research Questions

MTA developed a series of research questions to guide their work in the DC Charter Schools, including questions around classroom-based program implementation as well as capacity-building efforts. The research questions were divided into two categories: program implementation and outcomes monitoring (See Table 1).

Data to address program implementation research questions was collected during the grant period to address implementation research questions #1-7. Data was not collected for implementation research question #8 because the peer educator program did not take place. For outcomes monitoring, data was collected throughout the grant to determine to what extent students achieved program outcomes (#1). Although the original conception of the proposed programming also included an aim to build teacher and school capacity to teach sexual health education and support access to information and resources around sexual and reproductive health, this aim was never fully realized (Outcome Monitoring Research Questions #2-5). Qualitative discussion of activities related to building teacher and school capacity are discussed in the Implementation Evaluation Findings section.

**Table 1. Research Questions**

<b>Program Implementation Research Questions</b>	
1.	What are the characteristics of the participants?
2.	What are the attendance rates of the DC Charter School programs?
3.	To what extent are MTA facilitators achieving fidelity when implementing the programs?
4.	To what extent are MTA facilitators scoring proficiently during observations of the programs?
5.	What are the observed strengths and areas for program improvement?
6.	How satisfied are the students with their experiences with the programs?
7.	How satisfied are the DC Charter School teachers with their experiences with the programs?
8.	To what extent are MTA youth serving as peer educators in the DC Charter Schools?
<b>Outcomes Monitoring Research Questions</b>	
1.	To what extent are students achieving program outcomes (changes in knowledge, attitude, skills, and behaviors)?
2.	To what extent is there an increase in DC Charter School’s teacher/professional: <ol style="list-style-type: none"> <li>a. Access to information and resources related to adolescent health?</li> <li>b. Capacity with respect to comprehensive sexual health education?</li> <li>c. Interaction and support system around sexual and reproductive health?</li> </ol>
3.	To what extent are DC Charter Schools increasing: <ol style="list-style-type: none"> <li>a. Compliance with the Healthy Schools Act with respect to teaching comprehensive sexual health education?</li> <li>b. Access to resources such as birth control, condoms, medical services, and STI testing?</li> <li>c. Their comprehensiveness in providing information, referrals, and safe sex resources to youth?</li> </ol>
4.	To what extent are agencies and CBOs increasing their engagement in expanding schools’ pregnancy prevention services?
5.	To what extent are DC Charter School services aligned with city-wide priorities?

### Components of the Intervention

Two evidence-based curricula were used with students in DC Charter Schools:

1. *Making Proud Choices!* (MPC) is an adaptation of the *Be Proud! Be Responsible!* curriculum. MPC provides comprehensive, integrated HIV, sexually transmitted infections (STI), pregnancy, and substance abuse prevention education.<sup>1</sup> The modules focus on goals and future plans, adolescent sexuality, building knowledge and skills to prevent substance abuse and sexual risk-taking. The modules stress the benefits of remaining abstinent and focus on building confidence and skills related to communication with partners. The MPC curriculum was used for middle-school students. The Centers for Disease Control deemed MPC to be a “best-evidence” HIV behavioral intervention. This designation means that MPC has been rigorously evaluated and shown significant impacts in eliminating or reducing sex- or drug-related risk

<sup>1</sup> Note: MTA worked in close partnership with the Jemmotts (co-authors of MPC) to incorporate supplemental MPC substance abuse modules into the core curriculum. This allowed for alcohol and drugs to be included as part of risk-taking. This decision was grounded in local youth data showing high rates of marijuana and alcohol use among DC youth.

behaviors, reducing the rate of new HIV/STD infections, or increasing HIV-protective behaviors.

2. *Becoming A Responsible Teen* (BART) is an HIV-prevention program designed for African American high school students. Like MPC, the program combines HIV education with behavior skills training related to prevention of sexually transmitted infections, pregnancy, and substance abuse. Through BART, students clarify values around sexual decisions and practice sexual risk-reduction skills. The BART program was implemented with high school students. BART was given the distinction of an Evidence-Based Program through the Centers for Disease Control and Prevention, Division of Reproductive Health.

Both curricula were approved under the DC Health Education standards. Each program consisted of 8 modules. The programs were delivered once a week over eight weeks, as part of the school day by MTA staff. MTA had a designated School Team, comprised of a director, manager, and trained program facilitators. In Year 1, the program facilitators included both MTA staff and Americorps volunteers; however, in later years, only MTA staff facilitated the programs.

MTA worked directly with each DC Charter School administration on a Memorandum of Understanding [MOU] that outlined the MPC or BART program implementation as well as the data that would be collected from participating students in their school. In addition, MTA provided schools with an IRB-approved opt-out parental consent form to be distributed to parents of potential students prior to the start of the program.

### Program Implementation Evaluation Methods

A multi-method approach was planned to examine program implementation and fidelity (See Table 2). Facilitator Feedback Forms and Teacher Satisfaction Surveys were collected during program years 1-3. Session observations and the staff focus groups were implemented during Years 1-4, with Year 4 activities occurring before MTA’s merger with WWH. Because no new program implementation data were collected after the merger, a qualitative content analysis of previous evaluation reports completed by S&A was used to summarize findings related to program implementation evaluation findings for this report.

**Table 2. Overview of implementation evaluation data collection methods**

Data Collection Method	Purpose To examine...	Completed by	Implemented in Program Year				
			1	2	3	4-5*	6*
Facilitator Feedback Forms	Whether the session’s activities were implemented as planned, any modifications made, student engagement, and classroom teacher engagement	Program Facilitators after each session	✓	✓	✓	-	-

Data Collection Method	Purpose To examine...	Completed by	Implemented in Program Year				
			1	2	3	4-5*	6*
Teacher Satisfaction Surveys	Satisfaction with the program and with the facilitator	Classroom teachers after the final session	✓	✓	✓	-	-
Session Observation Forms	Adherence to planned program activities and facilitator's knowledge and skills.	S&A staff observed 5 sessions/year	✓	✓	✓	✓	-
Staff Focus Group	Strengths and challenges related to program implementation, other program components, lessons learned, and recommendations	S&A with MTA staff	✓	✓	✓	✓	-

\*Session Observations and Staff Focus Group were conducted prior to the merger with WWH. Implementation data was not collected after the merger.

## Participant Outcome Evaluation Methods

### Evaluation Design

For the participant outcome study, a single group pretest-posttest design was used. MTA determined that a non-experimental evaluation design was most appropriate given the existing evidence base for MPC and BART, along with the fact that previous experimental studies on these programs used a similar population to that being served in Washington DC (mostly black or Latino students in an urban district). In addition, based on experience conducting research in the DC public schools, significant challenges surrounding the feasibility of conducting a random assignment or quasi-experimental design were anticipated, such as challenges in getting school buy-in to participate in a design where they might serve as the comparison group and the need for active consent in a more rigorous design, which would limit sample size.

### Protection of Human Subjects

An external IRB reviewed and approved the evaluation protocol at MTA and WWH had their IRB review the protocol again after the merger. An opt-out consent process was used to inform parents about the programming, with parents returning the form if they did not want their child to participate. Students created a unique identifier that was used on the pretest and posttest surveys. After the surveys were completed, they were placed into a sealed envelope in the classroom. During Year 2, an internal audit at MTA revealed that some programming was being delivered in schools that had not been approved by the IRB as well as in a school for detained youth. Programming was halted and the IRB was contacted. After review and procedural changes, programming was resumed. The IRB allowed data to be analyzed, except for that from the detained youth.

### Data Preparation

MTA/WWH staff entered the data from the student paper surveys into an electronic format. During Years 1-3, S&A received BART and/or MPC Pretest and Posttest data in Excel files from MTA at the end of each school year. Data from program Years 4 and 5 were received from

WWH after the completion of Year 5 programs, and data from the Year 6 programs was received in September 2017.

Data files were cleaned to remove duplicate entries within each program year. Pretest and posttest data files were matched by confidential IDs. All years of data were ultimately combined into one file, with a variable added to specify in which year the data were collected. If there were duplicate confidential IDs between years, the first entry was retained. (See Appendix A for detailed data analysis methods).

The pretest-posttest surveys were modified after Year 1 to reduce the number of items as well as to include items requested by VPP to measure common indicators. The 5-year analysis included only items that were common across all program years as well as the common indicators that were added after Year 1. Variables were recoded as needed to ensure adequate sample size for analysis and to aid interpretability.

#### Missing Data

Missing data were examined in two ways. First, a drop-out analysis was conducted to determine if differences existed between students with matched pretest-posttest data and students with pretest only data using cross-tabs analysis. Secondly, the pretest-posttest data were examined to determine patterns of missingness among specific items that would be used in the outcome analysis. The EM algorithm (expectation-maximization algorithm) was used to impute missing item values using available data from related scale items and demographic items that were identified as significant predictors in regression analyses.

#### Scale Analysis

Scales were created by averaging the values from related items to create scale scores for each construct. Factor analysis and internal consistency reliability using Cronbach's alpha were conducted to determine whether the scales measured a unidimensional construct and had acceptable reliability (Cronbach's alpha  $\geq .7$ ).

#### Data Analysis

Descriptive analyses (e.g. frequencies, percentages, means) were conducted for items in the Pretest-Posttest Surveys. In order to control for the nesting effect of students within schools, linear mixed models were conducted for outcome analyses for the knowledge sum score, and the scales for attitudes, self-efficacy, and intentions. Post-hoc testing using the Sidak technique was used to compare differences among estimated marginal means, while adjusting for multiple tests. Demographic variables were added to the models to determine if subgroup differences existed for gender, race, age, baseline risky behaviors (i.e. reported ever having had sex at pretest), and program year. Although it was planned to include program dose in the model, attendance data was not available for all years and therefore, this analysis was not completed. The Cohen's *d* effect size was used to examine the extent of differences between the means for each construct at pretest and posttest.

### Teacher and School Capacity-Building Outcome Methods

Additional intervention components were planned to focus on teacher and school-level changes. MTA had endeavored to increase the capacity of charter school teachers to independently teach MPC or BART, provide annual staff training/development related to comprehensive sexual health education for charter school teachers, and assist charter schools in developing and implementing sexual-health related school policies. A tool to measure school capacity was developed by S&A that was to be used by MTA staff to allow the documentation of changes in school capacity. This tool was partially completed during Year 1 and not completed at all in later program years. Efforts to build teacher and school capacity are described qualitatively for this report.

## Implementation Evaluation Findings

This section includes the program timeline and a summary of the findings from the implementation evaluation components. Key highlights of the implementation evaluation findings include:

- A total of 59 MPC and 39 BART cohorts were implemented over the 5-year period.
- Matched data was available from 749 MPC students and 329 BART students.
- For MPC programs, the majority of sessions were implemented as planned; however, program modifications were reported by facilitators and observed by S&A staff. More modifications were reported for BART programs. For both programs, modifications were largely due to time constraints, which led to shortening or skipping some of the session activities.
- Program facilitators rated students as engaged, grasping program objectives, and able to complete program activities “most of the time.”
- Students were generally satisfied with the program and “agreed” to “strongly agreed” that they planned to use something they learned in the program to make a healthy decision.
- Teachers were generally present and engaged “most” to “all” of the time; however, staff noted that teacher engagement was primarily related to classroom management rather than engagement with the curriculum.
- Although feedback was received from only a small number of teachers (total n=24 from Years 1-3), those who provided feedback indicated that they were generally satisfied with the program.

### Timeline and Events

The timeline in Figure 1 shows major events related to program implementation over the five years of programming. Several major issues occurred that impacted programming. Programming was halted at the end of Year 2 due to IRB issues (discussed earlier in Protection of Human Rights section) and did not resume until spring of Year 3. In May 2013, during an internal audit, MTA found that it had been conducting programs in schools that were not on the list approved by the external IRB. In addition, programs were conducted in one charter school that educated detained youth. All programming and data collection activities were suspended and the external IRB was notified. MTA reviewed and revised its protocols around locations for data collection and the populations served. Ultimately, IRB approval was obtained to use the data collected during the 2012-13 program year (Year 2) for the end-of-year report, excluding the data collected from the detained youth. Programming for Year 3 was put on hold until February 2014 when permission was given by the external IRB to resume programming. Therefore, no program data was collected in during the fall of the 2013-14 school year. When MTA merged with WWH in February 2015, evaluation activities were again halted while WWH’s IRB reviewed the evaluation protocol. Programming and data collection resumed in the Fall of 2015 (Year 5).

Figure 1. Timeline and Events

### **Year 1 (2011-2012)**

- BART implemented in 7 charter schools, 112 students with matching data.
- School observations and staff focus group were conducted in January 2012.

### **Year 2 (2012-2013)**

- MPC implemented in 6 charter schools, 200 students with matching data.
- BART implemented in 3 charter schools, 119 with matching data.
- School observations were conducted between November 2012 - January 2013. Staff focus group was conducted in December 2012.
- In May 2013 during an internal audit, MTA found that it had been conducting programs in schools that were not on the list approved by the external IRB. In addition, programs were conducted in one charter school that educated detained youth. All programming and data collection activities were suspended and the external IRB was notified. MTA reviewed and revised its protocols around locations for data collection and the populations served. Ultimately, IRB approval was obtained to use the data collected during the 2012-13 program year for the end-of-year report, excluding the data collected from the detained youth.

### **Year 3 (2013-2014)**

- Due to IRB issues discussed above, programming was on hold until February 2014 when permission was given by external IRB to resume programming.
- MPC implemented in 2 charter schools, 108 students with matching data.
- School observations were conducted in June 2014. Staff focus group was conducted in August 2014.
- An electronic data management system was adopted to store program data

### **Year 4 (2014-2015) and Year 5 (2015-2016)**

- Data collected during Year 4 and Year 5 analyzed as part of 5-year evaluation.
- February 2015 – MTA joined WWH, which led to a halt of evaluation activities while the evaluation protocol was reviewed by WWH's IRB. No data collected in Spring 2015. Programming and data collection resumed in Year 5 during Fall 2015 and finished in June 2016.
- MPC implemented in 7 charter schools, 404 students with matching data.
- BART implemented in 2 charter schools, 63 with matching data.
- Year 4 school observations and staff focus group conducted in December 2014.

### **Year 6 (2016-2017)**

- The intervention was provided in late 2016 and into 2017.
- MPC implemented in 5 charter schools, 38 students with matching data
- BART implemented in 3 charter schools, 35 students with matching data
- No school observations or staff focus groups were conducted during this time.

## Program Cohorts

A total of 59 cohorts of MPC programs and 39 BART programs were implemented in 23 DC charter schools and had pretest/posttest data available for the evaluation (See Table 3 and Table 4). No MPC programs were implemented in Year 1 of the project and no BART programs were implemented in Year 3 of the project.

**Table 3. MPC Programming**

School Year / Grant Year	Schools	Number of Cohorts n	Total Cohorts n
<b>Year 1 2011-12</b>	No MPC programs	0	0
<b>Year 2 2012 – 13</b>	Friendship Chamberlain PCS	6	14
	Imagine Hope PCS	1	
	MM Bethune	1	
	Maya Angelou	4	
	Meridian PCS	1	
	Two Rivers PCS	1	
<b>Year 3 2013-14</b>	Cesar Chavez PCS	6	10
	Two Rivers PCS	4	
<b>Year 4-5 2014 – 16*</b>	Capital City PCS	2	30
	Center City PCS	3	
	Howard University PCS	12	
	Imagine Hope PCS	4	
	SEED PCS	2	
	Two Rivers PCS	4	
	Will PCS	3	
<b>Year 6 2016-2017**</b>	Capitol City PCS	1	5
	Cesar Chavez PCS	1	
	Imagine Hope PCS	1	
	Two Rivers PCS	2	
<b>Total</b>			<b>59</b>

\*Programming for Year 4 and 5 ended in June 2016. The data from these two years was provided to S&A as part of the 5-year evaluation and was not analyzed separately.

\*\*Additional programming was conducted by all grantees Year 6. The programming was delivered in Fall 2016 and Winter 2017. This data was provided to Shattuck and Associates in September 2017.

**Table 4. BART Programming**

School Year / Grant Year	Schools	Number of Cohorts	Total Cohorts
<b>Year 1 2011-12</b>	Hospitality High	5	16
	Kingsbury Day School	1	
	KIPP AIM Academy	1	
	KIPP DC College Prep	1	
	New Beginnings PCS	5	
	Next Step PCS	1	
	Options PCS	2	
<b>Year 2 2012 – 13</b>	EL Haynes PCS	9	16
	High Road Academy	1	
	Hospitality High School	6	
<b>Year 3 2013-14</b>	No BART programs	0	0
<b>Year 4-5 2014-16*</b>	Paul PCS	3	4
	SEED PCS	1	
<b>Year 6 2016-2017**</b>	Paul PCS	2	3
	Templeton Academy	1	
<b>Total</b>			<b>39</b>

\*Programming for Year 4 and 5 ended in June 2016. The data from these two years was provided to S&A as part of the 5-year evaluation and was not analyzed separately.

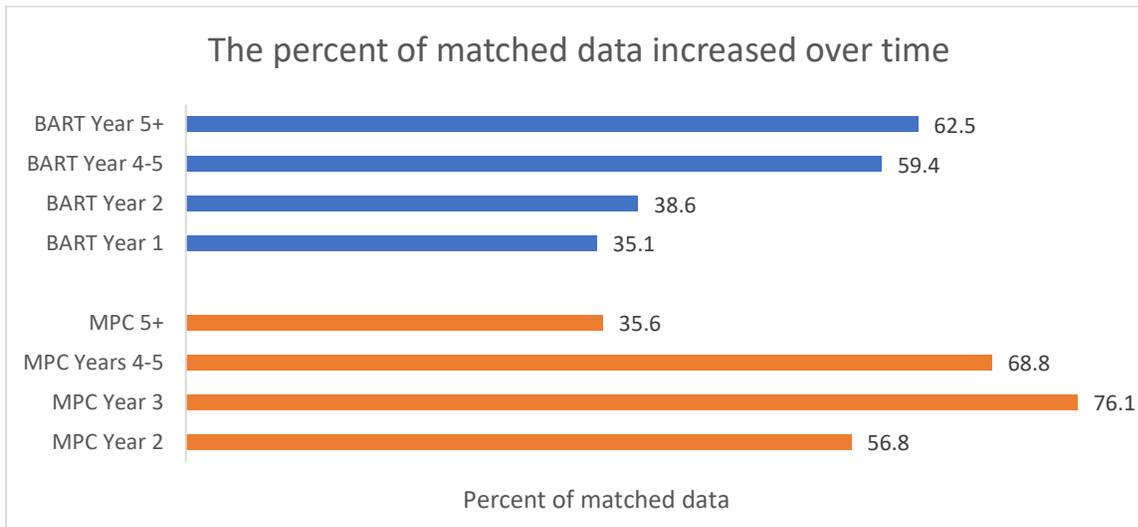
\*\*Additional programming was conducted by all grantees in Year 6. The programming was delivered in Fall 2016 and Winter 2017. This data was provided to Shattuck and Associates in September 2017.

#### Matched Data

The availability of matched pretest-posttest data for BART programs improved over the program years, with large increases after Year 2 (See Figure 2). MPC programs had also shown a large increase after year 2, but had a large decrease in Year 6. For the combined dataset, the percent matching for MPC was 66.0% and the percent matching for BART was 41.5%.

In the early program years, MTA’s evaluation director, with support from S&A, worked to help the MPC and BART program facilitators understand the importance of the evaluation and the timely and accurate completion of evaluation components. The facilitators increasingly supported the evaluation efforts as they saw that evaluation was a way to recognize the work they were doing. In addition, programs during the later years were implemented by facilitators who were experienced in both leading the program as well as implementing the evaluation protocol. The adoption of a new software system also helped improve the data match rate.

**Figure 2. Percent of matched data**



### Program Fidelity

On the Facilitator Feedback Forms collected during Years 1-3, program leaders indicated whether they had delivered session activities as planned, whether they skipped activities, or whether they made modifications. For MPC programs, the majority of sessions were implemented as planned; however, many Year 1 and Year 2 BART sessions for which there were Facilitator Feedback Forms reported modified or skipped activities (See Table 5 and Appendix Table B1).

**Table 5. Percent of program sessions implemented as designed**

Program Year	MPC Percent reporting No Activities Skipped	MPC Percent reporting NO Activities Modified
Year 1 (n=0)	No MPC programs	No MPC programs
Year 2 (n=107 sessions)	72%	86%
Year 3 (n=87 sessions)	76%	90%
BART Program Year	BART Percent reporting NO Activities Skipped	BART Percent reporting NO Activities Modified
Year 1 (n=95 sessions)	Not asked	46%
Year 2 (n=158 sessions)	56%	75%
Year 3 (n=0)	No BART programs	No BART programs

Across the three years, the main reason for modification or skipping an activity was lack of time. When an activity was modified, the most frequent modification was simplifying the activity. External observation of program sessions by S&A confirmed that time constraints led to skipping or simplifying activities. S&A observed that facilitators followed the guidance on the dosage protocol for the priority activities they should implement when time was an issue.

Another modification noted by S&A during the external observations in the early program years was that facilitators did not consistently tie activities back to program objectives. This feedback was shared with MTA staff. The summary report from the external observations conducted in

Year 4 noted that attention to objectives had improved that year, with the inclusion of posting and reviewing the session objectives at the start of each session and greater adherence to the parts of the script linking the activities and objectives as time allowed.

#### Program Quality

As part of the external observations, the S&A staff completed a Session Observation Form, which was developed to provide a measure of the facilitator's skills. It included ratings of the facilitator's subject knowledge (2 items),<sup>2</sup> classroom management skills (3 items), and session facilitation skills (3 items). Each item was rated on a 4-point scale (1=Emerging, 2=Proficient, 3=Advanced, 4=Exemplary).

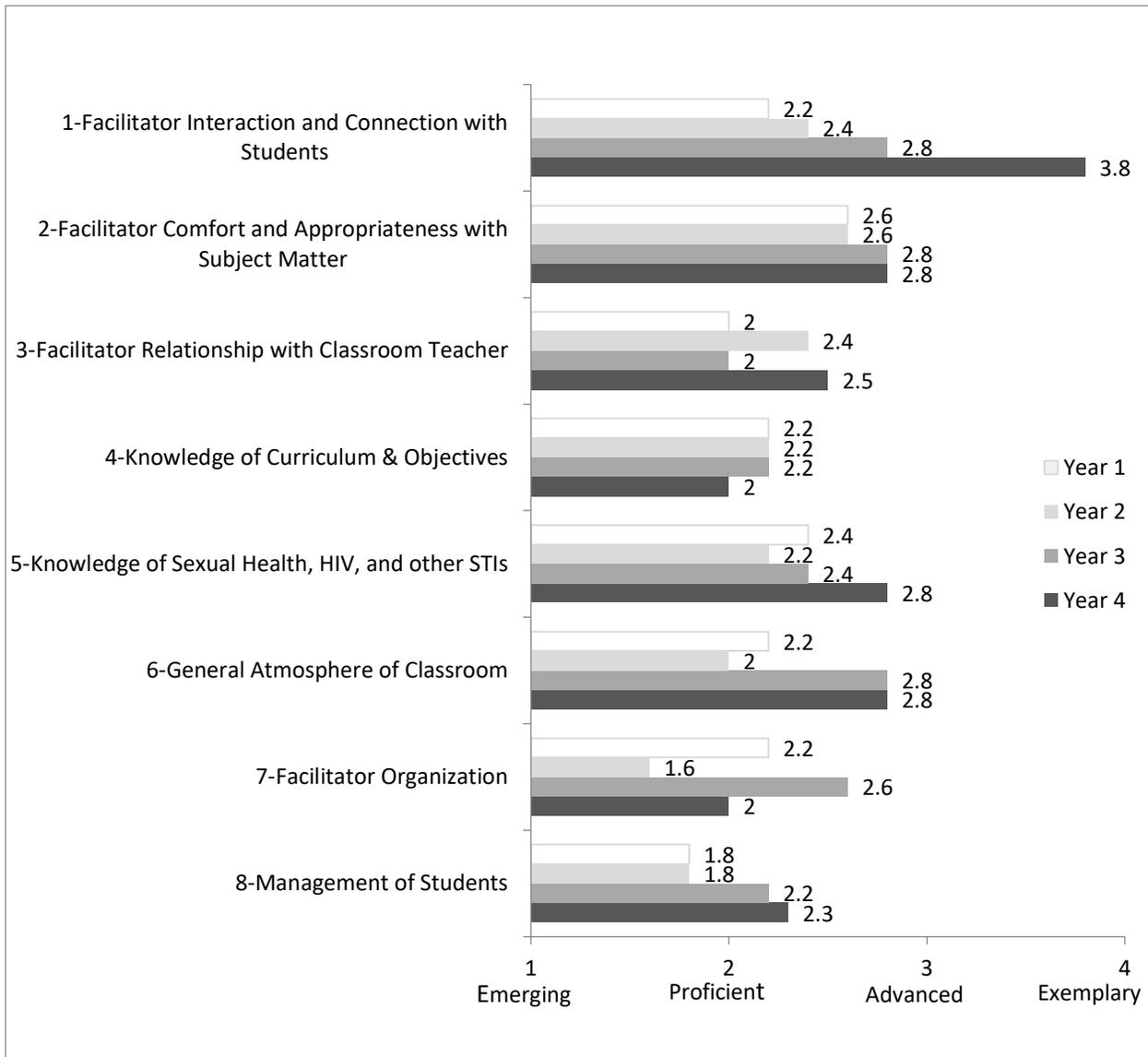
Ratings of "Proficient" or higher for each item increased over the 4 years of observation. In Year 1, 73% of observed items received a rating of "Proficient" or higher. This increased to 82% in Year 2. In Years 3 and 4, all observed items received a rating of "Proficient" or higher. This improvement likely reflects having a consistent and experienced staff by Year 4.

Means tended to be highest in the areas of facilitator interaction and connection with the students; comfort with the subject matter; knowledge of sexual health, HIV, and other STIs; and general atmosphere of the classroom (See Figure 3 and Appendix Tables B2-B4). The lowest mean tended to be for classroom management, which facilitators acknowledged as a challenging area in the yearly focus groups, in particular because they were implementing the programs in different charter schools, each with their own unique culture and behavioral expectations.

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<sup>2</sup> A third knowledge item that measured knowledge of MTA and other community resources was rarely observed and not included in this summary.

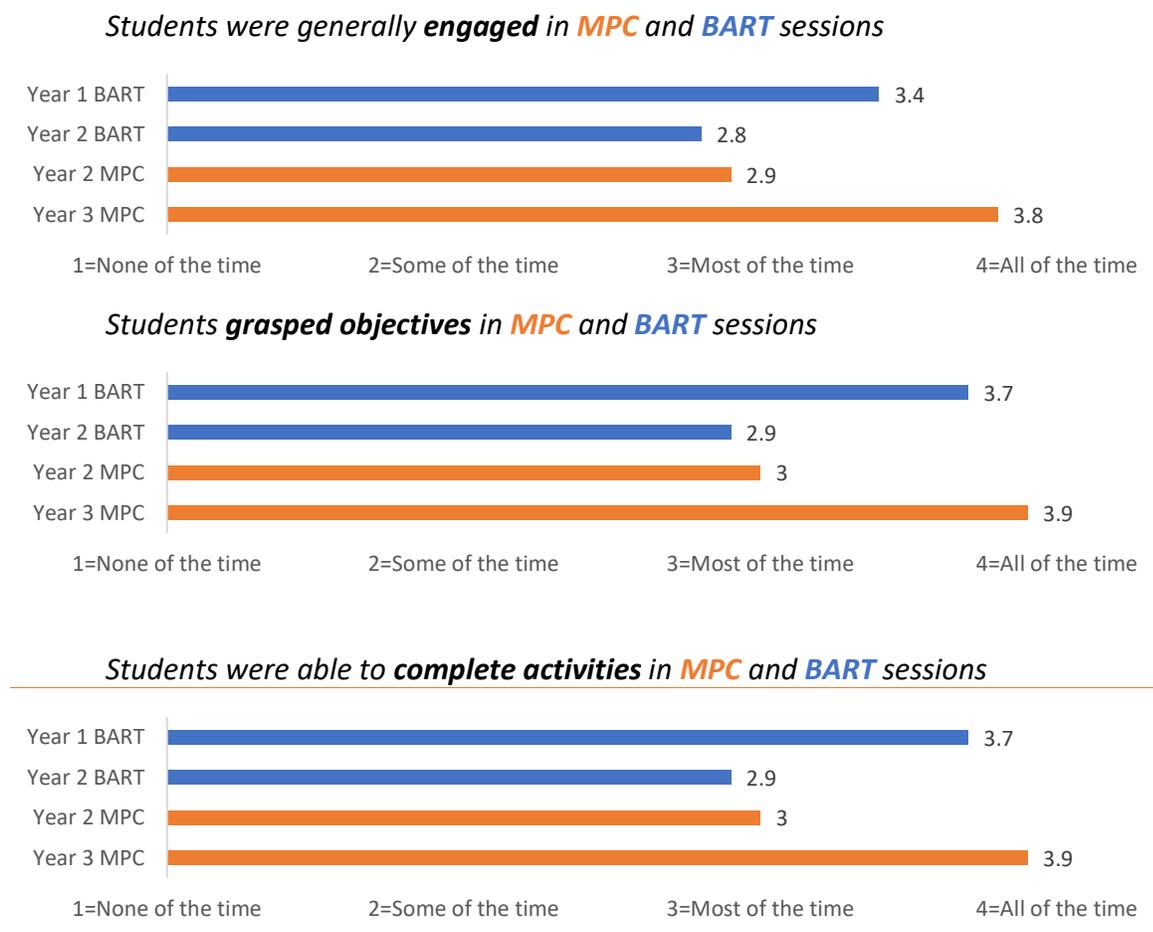
**Figure 3. Means for facilitator ratings by external observers**



### Facilitator Ratings of Student Participation

Facilitators were asked to rate three items related to student participation using a 4-point scale of “1=None of the time” to “4=All of the time.” Means for whether students were engaged, grasping the objectives, and able to complete the activities indicated that both MPC students and BART students were able to do so “most of the time” to “all of the time” (See Figure 4 and Appendix Table B5).

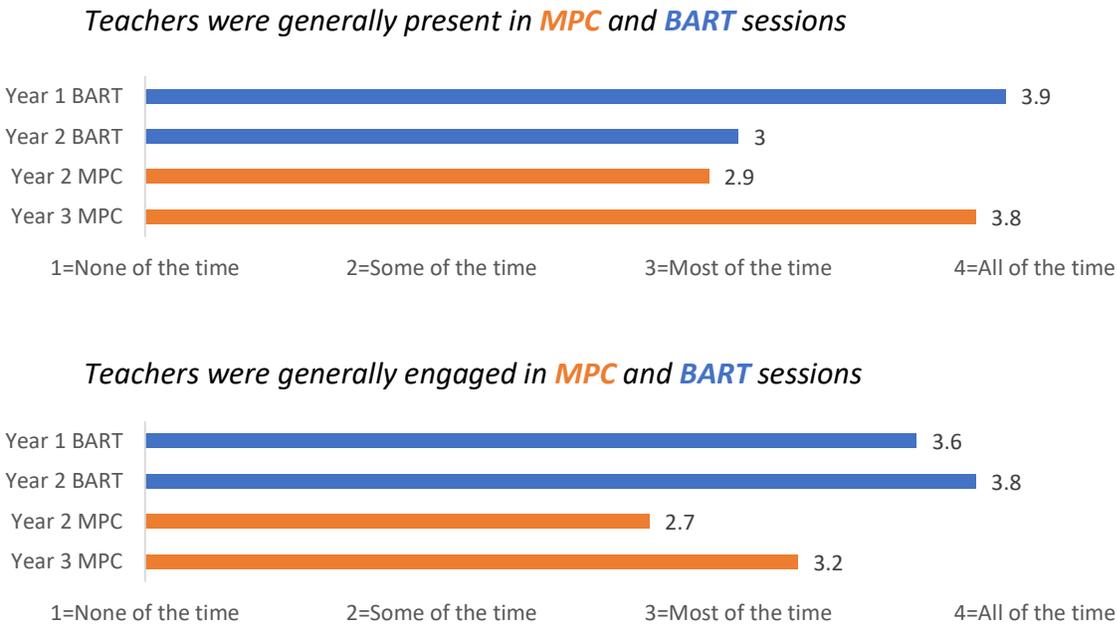
**Figure 4. Facilitator ratings of student participation**



### Facilitator Rating of Teacher Engagement

Facilitators rated how much of the time the classroom teacher was present and engaged on a 4-point scale from “1=None of the time” to “4=All of the time.” Mean scores indicated that teachers were generally present and engaged “most” to “all” of the time (See Figure 5 and Appendix Table B6).

**Figure 5. Facilitator ratings of teacher engagement**



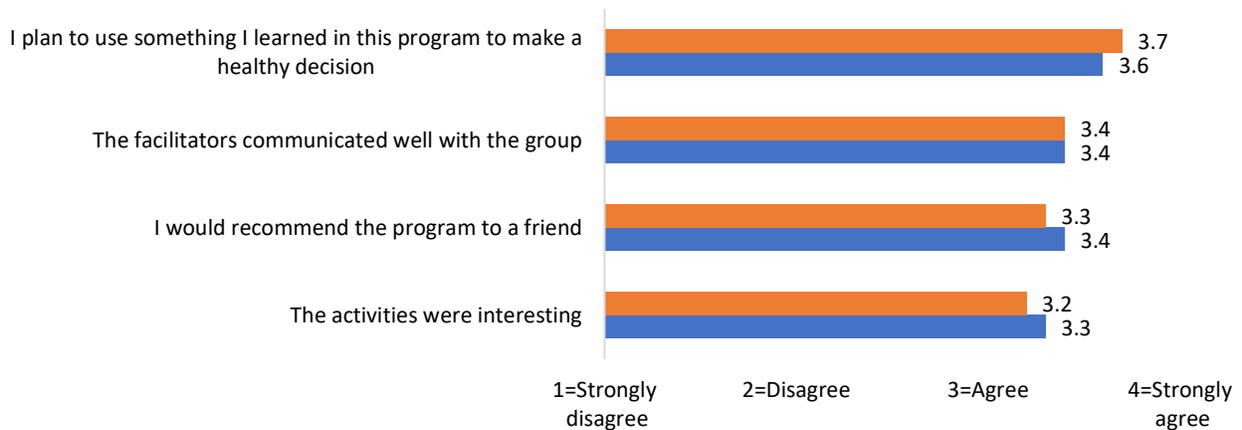
One of the original aims of the project was to develop teacher capacity to deliver comprehensive sexual education programming. This was to be done via a co-teaching model, in which the teacher would observe the facilitator, followed by teaching together, followed by the teacher delivering the curriculum with support of the facilitator. Several factors interfered with realization of this component: lack of consistent leadership and “ownership” of this component, lack of a clear vision for how to implement this component in different charter schools, and teacher turn-over at the schools in which the program was implemented. Comments offered by program staff during the focus groups suggested that teacher engagement ratings largely reflected assistance with classroom management, rather than actual engagement with the curriculum. They also noted that many teachers shared that they were uncomfortable talking about the content areas and would have benefited from professional development. While MTA did offer some professional development opportunities, one day-long event was cancelled by snow and other events had low attendance due to the difficulty of scheduling across charter schools whose calendars differed.

### Student Satisfaction

On the Posttest Surveys, students were asked to rate their agreement with a series of statements related to satisfaction with the program. Overall, high levels of satisfaction were found across all years, with the highest means for both programs indicating strong agreement that the students planned to use something they learned in the program to make a healthy decision (See Figure 6 and Appendix Tables B7-B10).

**Figure 6. Student satisfaction**

*Students in MPC and BART were satisfied with the programs*



### Classroom Teacher Satisfaction

Classroom teachers were asked to rate their satisfaction with the program (See Appendix Table B11). Although few teacher surveys were received overall, among those submitted, 80% or more of teachers agreed that:

- The program was a valuable addition to the curriculum
- They would welcome the program back in the future
- They would recommend the program to a friend/colleague.<sup>3</sup>

Teachers were also asked to rate the program facilitators (See Appendix Table B12). In general, mean scores showed that teachers generally “agreed” to “strongly agreed” that the facilitators:

- Were knowledgeable
- Communicated well with students
- Managed classroom challenges that arose
- Gave thoughtful responses to questions
- Were respectful of all students during the program
- Had a positive working relationship with the school staff

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<sup>3</sup> This item was not asked in Year 1

## Participant Outcomes related to Knowledge, Attitudes, Self-efficacy, and Intentions

The outcome evaluation data from students participating in the MPC and BART programs was analyzed to measure pretest to posttest changes in knowledge, attitudes, self-efficacy, and intentions. The analyses were conducted on data from 749 MPC students and 329 BART students whose pretests and posttests could be matched by their unique ID codes. This section presents a summary of the findings, with more detailed data tables presented in Appendix C.

### Program Participants

Demographic data collected on the pretest showed that overall students were evenly divided between males and females and identified predominantly as African American (See Appendix Tables C1-C2). Fewer than 20% of MPC students and just over half of BART students reported risky behavior, defined for the evaluation as having engaged in sexual intercourse at pretest.

For MPC students, no significant differences were found between those with and without matched data on the basis of race/ethnicity and engagement in risky behavior. A significant difference was found for gender, with male students having a higher percentage of matched data and for age, with older students having a higher percentage of matched data.

For BART students, no significant differences were found between students with matched and unmatched data based on gender and engagement in risky behavior. A significant difference was found for age, with younger students having a higher percentage of matched data and for race/ethnicity, with African American students having a lower percentage of matched data.

### Summary of Findings

MPC students showed significant increases in all 6 outcomes: Knowledge, Attitudes about Unprotected Sex, Attitudes about Condoms, Condom Self-Efficacy, Risky Behavior Refusal Self-efficacy, and Intentions (See Table 6). BART students showed a significant increase in 3 of 6 outcomes: Knowledge, Condom Self-Efficacy and Risky Behavior Refusal Self-Efficacy.

In terms of effect sizes, the differences between pretest and posttest means for Knowledge for both MPC and BART would be considered large effects<sup>4</sup>. The effect sizes for MPC Attitudes about Unprotected Sex, Attitudes about Condoms, and Condom Self-Efficacy would be considered medium, and MPC Risky Behavior Refusal Self-Efficacy and Intentions would be considered small. The difference between BART pretest and posttest means for Condom Self-efficacy and Risky Behavior Refusal Self-Efficacy would be considered a small effect. A few subgroup differences were identified and are discussed in subsequent sections.

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<sup>4</sup> Hinkle, D.E., Wiersma, W., & Jurs, S.G. (1998). *Applied Statistics for the Behavioral Sciences*, 4<sup>th</sup> ed. Boston: Houghton Mifflin Company

**Table 6. Summary of MPC and BART Outcome Results**

Outcome (Scale Range)	Findings							
	MPC				BART			
	Pretest Mean	Posttest Mean	Significant Pretest to Posttest Change	Cohen's <i>d</i> Effect Size	Pretest Mean	Posttest Mean	Significant Pretest to Posttest Change	Cohen's <i>d</i> Effect Size
<b>Knowledge</b> (Scale Range 0-5)	2.26	3.19	✓	0.86 (large)	2.85	3.59	✓	0.74 (large)
<b>Attitudes about unprotected sex</b> (Scale Range 1-4)	3.12	3.34	✓	0.30 (small- medium)	3.11	3.16	-	0.08
<b>Attitudes about condoms</b> (Scale Range 1-4)	3.0	3.20	✓	0.47 (medium)	3.09	3.14	-	0.11
<b>Condom self-efficacy</b> (Scale Range 1-4)	2.82	3.14	✓	0.51 (medium)	3.16	3.25	✓	0.19 (small)
<b>Risky behavior refusal self- efficacy</b> (Scale Range 1-4)	3.03	3.28	✓	0.40 (small- medium)	3.24	3.34	✓	0.18 (small)
<b>Intentions</b> (Scale Range 1-4)	3.42	3.56	✓	0.26 (small- medium)	3.39	3.41	-	0.03

## Changes in knowledge, attitudes, self-efficacy, and intentions

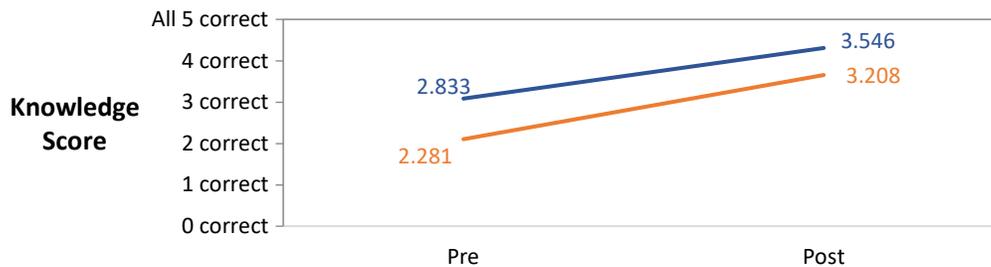
### Knowledge

The number of correct responses to five questions was used to create the Knowledge score. Questions assessed student knowledge about safer sex and contraceptives, HIV, and HIV risk factors.

**Overall.** Significant increases in knowledge ( $p < .001$ ) from pretest to posttest were found among students in both the MPC and BART programs (See Figure 7 and Appendix Tables C3-C4).

**Figure 7. Overall changes in knowledge in MPC and BART students**

*MPC and BART students significantly increased their knowledge from pretest to posttest.*

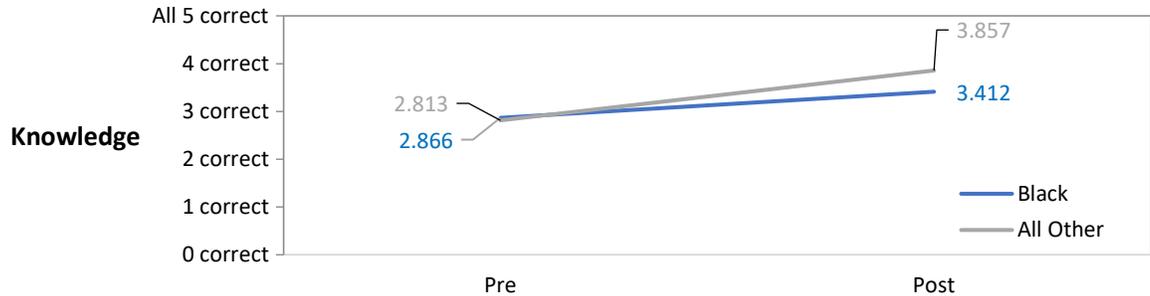


**Subgroup Differences.** No significant subgroup differences were found for MPC students (See Appendix Table C5). For BART students, a significant interaction effect was found between knowledge and race, age, and pretest risky behavior (See Appendix Table C6):

- **BART Knowledge and Race:** While no significant differences in pretest knowledge existed by race (Black compared to Others) and both groups significantly increased knowledge, students from other races increased their knowledge to a greater degree than black students at posttest ( $p < .01$ ) (See Figure 8).
- **BART Knowledge and Baseline Risky Behavior:** At pretest, students who reported engaging in risky behaviors (having had sexual intercourse) had significantly more knowledge than students who had not ( $p < .001$ ) (See Figure 9). Both groups significantly increased their knowledge from pretest to posttest ( $p < .001$ ), with no significant differences at posttest by risky behavior.

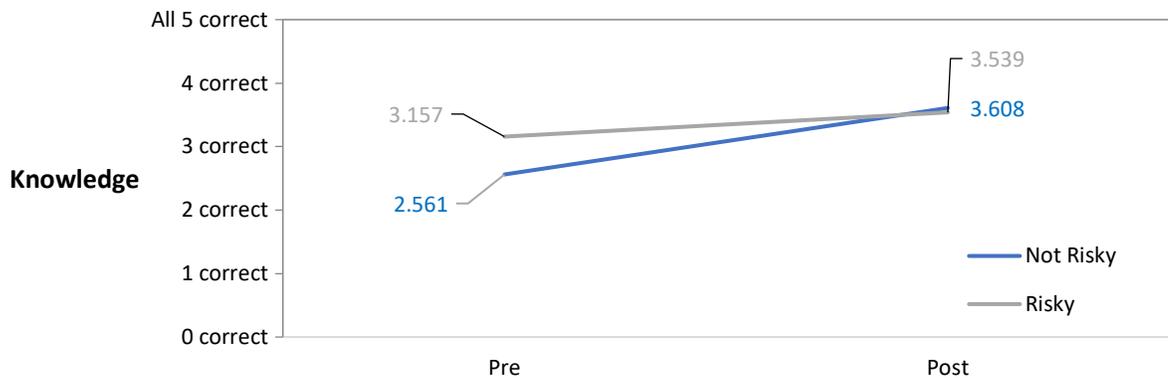
**Figure 8. BART Interaction effect for knowledge and race**

*BART students who were Black significantly increased their knowledge, but not to the same degree as students from other racial groups*



**Figure 9. BART interaction effect for knowledge and baseline risky behavior**

*BART pretest differences in knowledge by baseline risky behavior disappeared at posttest.*



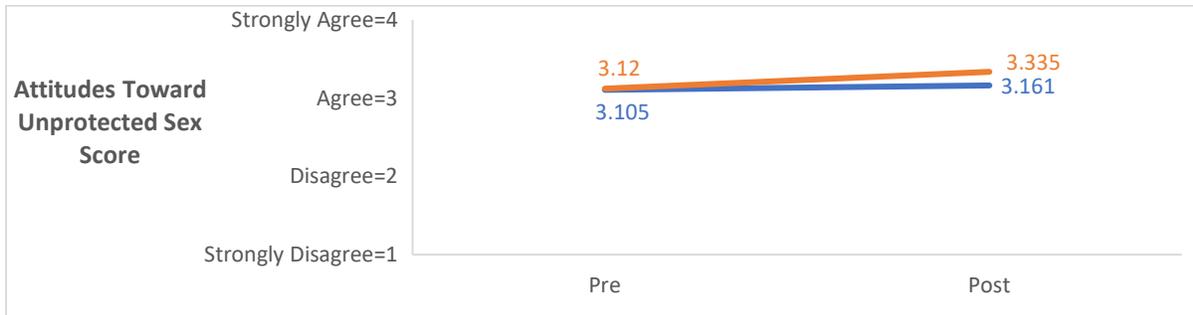
#### Attitudes toward unprotected sex

**Attitudes toward unprotected sex.** Students were asked how much they agreed with three statements about whether having unprotected sex would interfere with their goals and dreams for their education, their career, and their future using a 4-point scale ranging from “1=Strongly disagree” to “4=Strongly agree.” Responses were averaged to create the Attitudes Toward Unprotected Sex score.

**Overall.** For MPC students, a significant positive increase ( $p < .001$ ) was found in the pretest-posttest change in attitudes relating to how unprotected sex can interfere with the participant’s goals and dreams for their education, their career, and their future. No significant change in these attitudes were found for BART students overall. (See Figure 10 and Appendix Tables C7-8).

**Figure 10. Changes in attitudes toward unprotected sex on goals and dreams**

*MPC* students more strongly agreed at posttest than pretest that unprotected sex would interfere with their goals and dreams. No change was found in *BART* students.



**Subgroup differences.** No significant subgroup differences were found for MPC students (See Appendix Table C9). For BART students, a significant interaction effect was found between the attitudes toward unprotected sex on goals and dreams and program year (See Figure 11 and Appendix Table C10). At pretest, no differences were found between students starting the program in different years. However, significant differences were found between the groups at posttest. Students in the first year showed a significant decrease, students in the second year did not change, and students in Years 4-5 and Year 6 showed a significant increase in agreement that unprotected sex would interfere with their goals and dreams related to their education, their career, and their future.

**Figure 11. BART interaction effect for attitudes toward unprotected sex and program year**

Significant mean differences\* were found by program year. A significant pretest to posttest mean decrease was found in Year 1, but significant positive increases were found in Years 4-5 and Year 6. The Year 2 increase was not significant.



\*Mean scores ranged from 1=Strongly disagree to 4=Strongly agree

### Attitudes about condoms

The Attitudes about Condoms Scale Score was created by averaging student's agreement with 7 items using a 4-point scale ranging from "1=Strongly disagree" to "4=Strongly agree." Items assessed whether students felt that condoms would reduce pregnancy and STI/HIV risk, would show they care about themselves and their partner, that their partner would react positively, that their own and their partner's experience would still be fun and pleasurable, and would be an expected part of the sexual experience.

**Overall and Subgroup Differences.** MPC students had significantly more positive attitudes at posttest as compared to pretest ( $p < .001$ ). No significant change in these attitudes were found for BART students. (See Figure 12 and Appendix Tables C11-12). No significant subgroup differences were found for either MPC or BART students (See Appendix Tables C13-14).

**Figure 12. Changes in attitudes about condoms**

*MPC students became significantly more positive in their attitudes about condom use but no change was found among BART students.*



### Attitudes about pregnancy

Participants were asked to rate how upset they would be on a 4-point scale from "1=Very upset" to "4=Very pleased" if they got pregnant now (females) or if they got a female pregnant (males).

For MPC students, almost all females reported that they would be "very upset" to "upset" at both pretest and posttest (95.5% at pretest, 96.4% at posttest), while lower percentages of boys felt this way (75.6 at pretest, 78.8% at posttest) (See Appendix Table C15).

A similar pattern was found for BART students. Almost all female students in BART reported that they would be "very upset" to "upset" at both pretest and posttest (92.0% at pretest, 93%

at posttest), while lower percentages of boys felt this way (82.1% pretest, 78.2% at posttest.) (See Appendix Table C16).

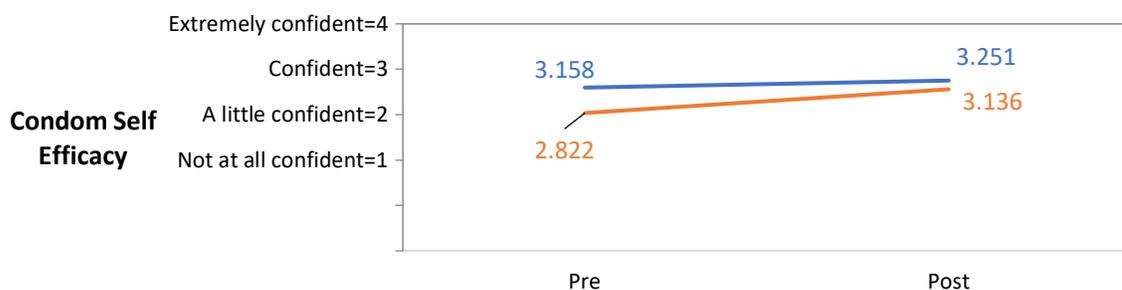
### Condom Self-efficacy

Students were asked to rate their self-efficacy on 3 items related to getting, discussing, and successfully using condoms on a 4-point scale from “1=Not at all confident” to “4=Very confident.” Scores were averaged to create the condom self-efficacy scale.

**Overall.** MPC students showed a significant increase from pretest to posttest ( $p<.001$ ) (See Figure 13 and Appendix Tables C17-18). BART students showed no significant pretest to posttest change.

**Figure 13. Changes in condom self-efficacy**

*MPC* students significantly increased their confidence around getting, discussing, and using condoms, but no significant change was found for *BART* students.

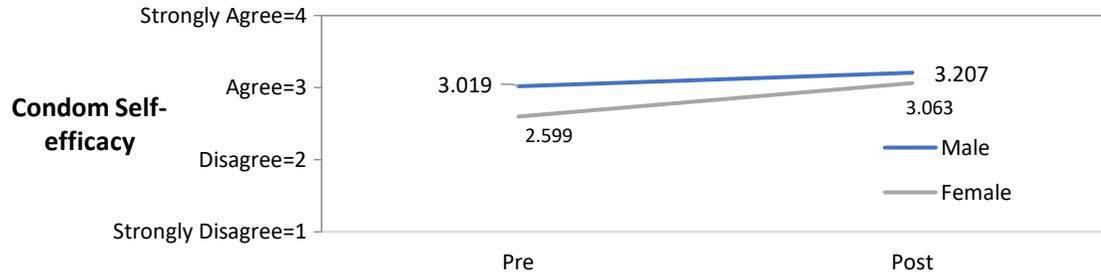


**Subgroup Differences.** For MPC students, significant interaction effects were found for condom self-efficacy and gender as well as for condom self-efficacy and baseline risky behavior (having engaged in sexual intercourse) (See Appendix Table C19).

- **MPC Condom Self-efficacy and Gender:** While both female and male MPC students had significant pretest to posttest improvements, female students reported significantly lower condom self-efficacy than male students at both pretest ( $p<.01$ ) and at posttest ( $p<.01$ ) (See Figure 14).
- **MPC Condom Self-efficacy and Baseline Risky Behavior:** At pretest, MPC students who had not engaged in risky behavior had lower condom self-efficacy than those who had ( $p<.01$ ) (See Figure 15). The students who had not engaged in risky behavior significantly increased their condom self-efficacy by posttest ( $p<.001$ ). No pretest to posttest change was found for those who had engaged in risky behavior and there was no significant difference between the groups at posttest.

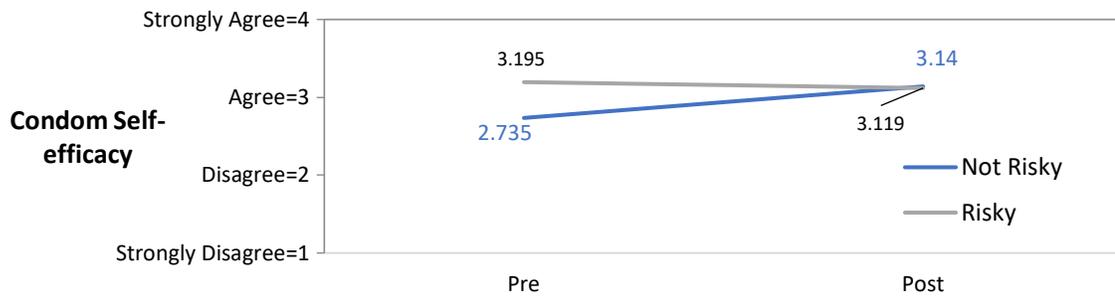
**Figure 14. MPC interaction Effect for condom self-efficacy and gender**

*Both males and female MPC students significantly increased their condom self-efficacy but females continued to have lower condom self-efficacy than males*



**Figure 15. MPC interaction effect for condom self-efficacy and risky behavior**

*MPC students who had not engaged in baseline risky behaviors significantly increased their condom self-efficacy*



For BART students, similar interaction effects were found for gender and baseline risky behavior (See Appendix Table C20) as well as for program year:

- BART Condom Self-efficacy and Gender:** Female BART students had significantly lower pretest self-efficacy than male students ( $p < .01$ ). They significantly increased their self-efficacy ( $p < .001$ ) at posttest to levels undistinguishable from the male students, who had no significant change (See Figure 16).
- BART Condom Self-efficacy and Baseline Risky Behavior:** BART students who had not engaged in baseline risky behavior significantly increased their condom self-efficacy from pretest to posttest ( $p < .001$ ); however, their self-efficacy was lower at both pretest ( $p < .001$ ) and posttest ( $p < .05$ ) than students who had engaged in baseline risky behavior. No significant pretest to posttest change was found for students who engaged in baseline risky behavior (See Figure 17).

- BART Condom Self-Efficacy and Program Year:** Although the groups in different program years were not significantly different at pretest or at posttest, those in program years 4-5 and Year 6 had a significant increase from pretest to posttest (See Figure 18).

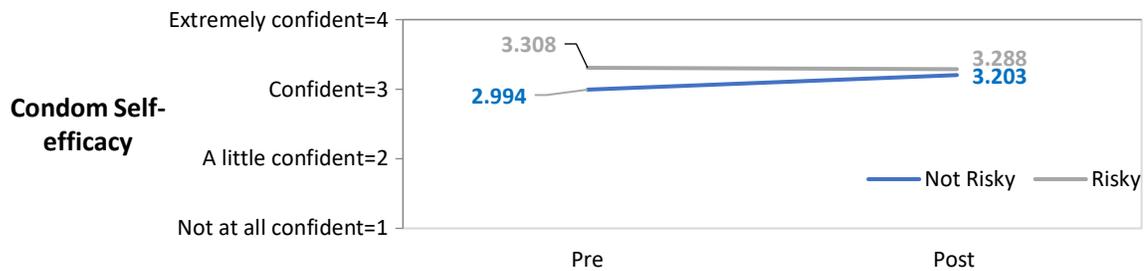
**Figure 16. BART interaction effect for condom self-efficacy and gender**

*BART female students significantly increased their condom self-efficacy from pre-test to posttest. Their posttest levels were comparable to the BART male students.*



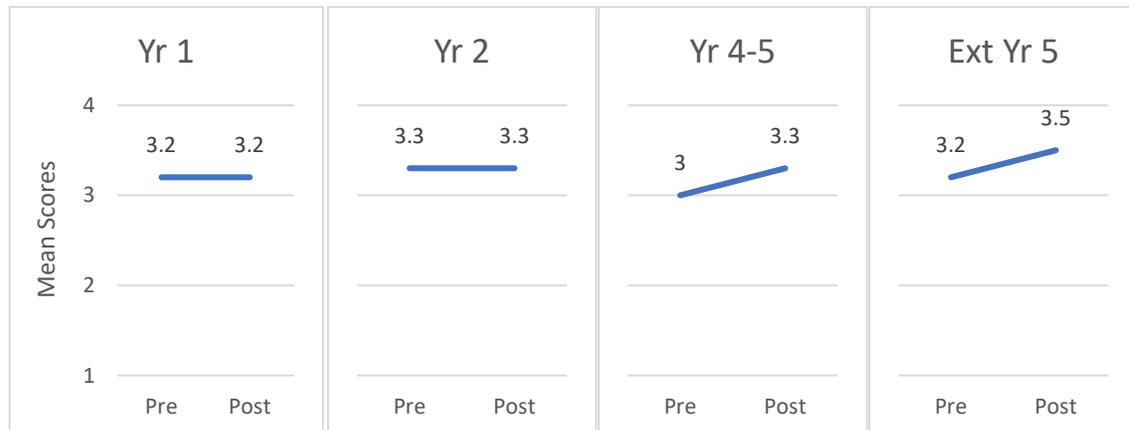
**Figure 17. BART interaction effect for condom self-efficacy and baseline risky behavior**

*BART students who had not engaged in baseline risky behavior significantly increased their condom self-efficacy from pretest to posttest*



**Figure 18. BART interaction effect for condom self-efficacy and program year**

*BART students in Program Years 4-5 and 6 significantly increased condom self-efficacy.*



\*Mean scores ranged from 1=Not at all confident to 4=Very confident

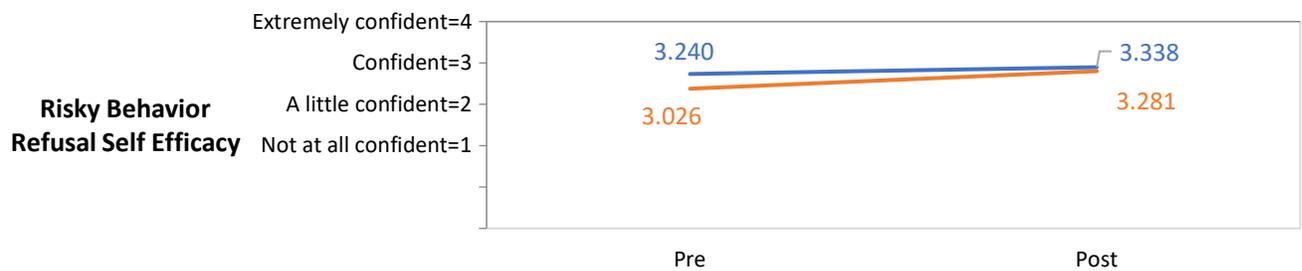
### Risky Behavior Refusal Self-efficacy

Students were asked to rate their self-efficacy on 4 items related to recognizing and refusing risky behaviors on a 4-point scale from “1=Not at all confident” to “4=Very confident.” Scores were averaged to create the risky behavior refusal self-efficacy scale.

**Overall.** Significant increases in risky behavior refusal self-efficacy from pretest to posttest were found among students in the MPC program ( $p < .001$ ) and students in the BART program ( $p = .02$ ). (See Figure 19 and Appendix Tables C21-C22).

**Figure 18. Changes in risky behavior refusal self-efficacy**

*Both MPC and BART students significantly increased their confidence for refusing risky behaviors*

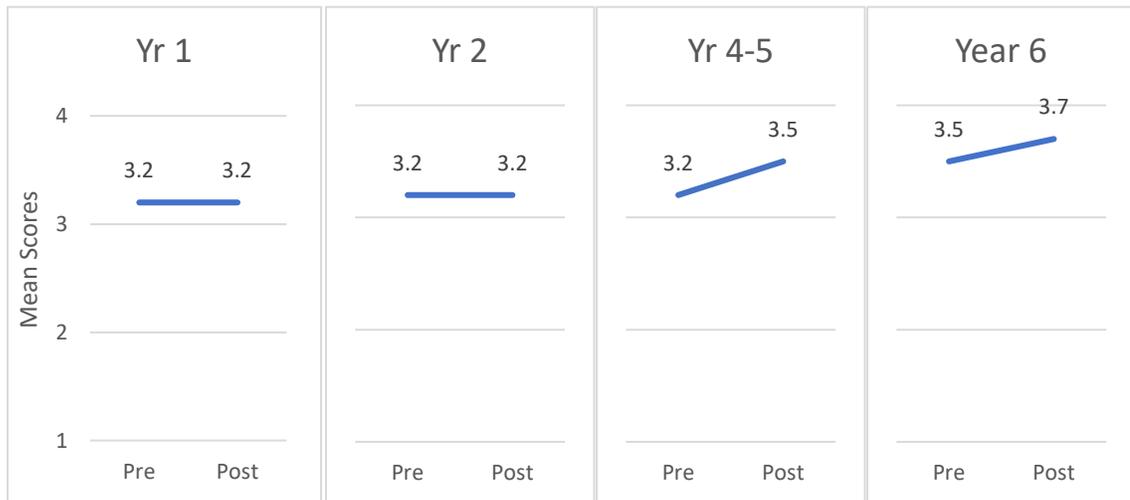


**Subgroup Differences.** No interaction effects were found for MPC students (see Appendix Table C23). For BART students, significant interaction effects were found between risky behavior refusal self-efficacy and year as well as for race (See Appendix Table C24).

- **BART Risky Behavior Refusal Self-Efficacy and Year.** While no significant differences existed at pretest for students in each program year, significant increases in risky behavior refusal self-efficacy significantly increased only for those in Year 4-5 ( $p < .001$ ) (See Figure 20).
- **BART Risky Behavior Refusal Self-Efficacy and Race.** No significant differences existed at pretest for students who were black as compared to students of other races. However, only students of other races had a significant increase in risky behavior refusal self-efficacy from pretest to posttest ( $p < .001$ ). Their posttest scores were significantly higher than the scores of students who were black ( $p = .04$ ) (See Figure 21).

**Figure 19. BART interaction effect for risky behavior refusal self-efficacy and program year**

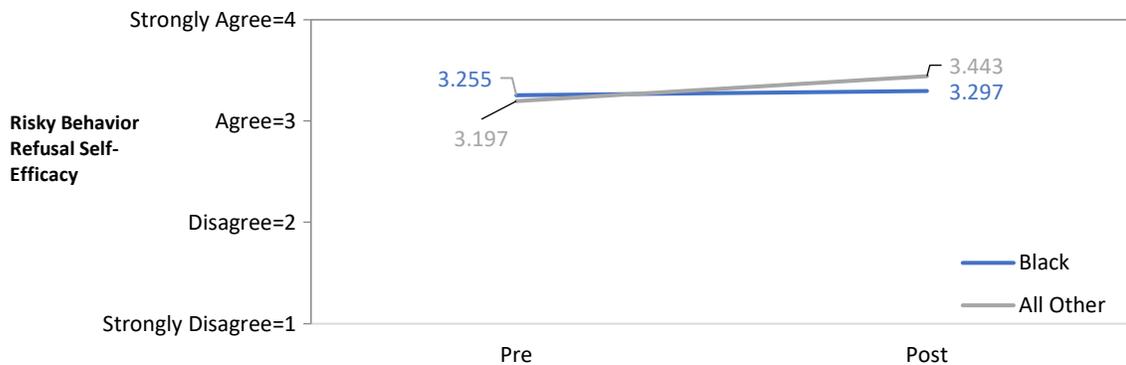
*Only BART students in Years 6 significantly increased refusal self-efficacy*



\*Means based on 4-point scale from 1=Not at all confident to 4=Very confident

**Figure 20. BART interaction effect for risky behavior refusal self-efficacy and race**

*Only BART students of other races had a significant pretest-posttest increase in refusal self-efficacy*



### Intentions

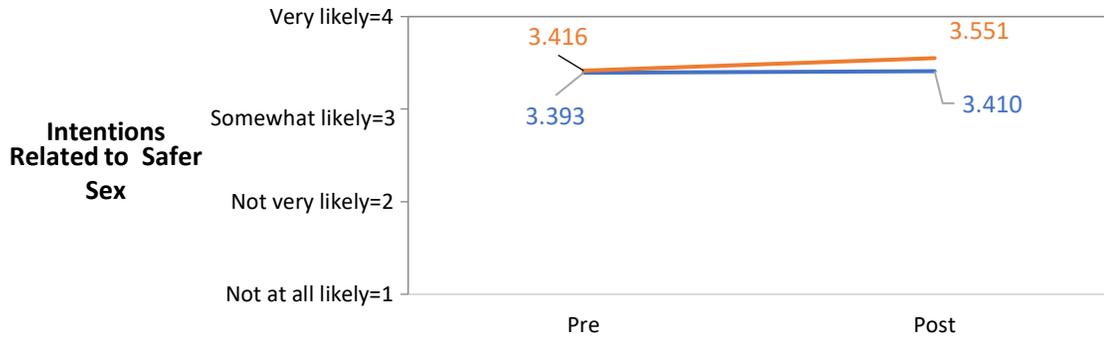
Students were asked to rate their intention to engage in safer sex practices on 3 items (talk to your partner about HIV/STIs, talk to your partner about using condoms, use a condom during sex) using a 4-point scale from “1=Not at all likely” to “4=Very likely.” Scores were averaged to create the Intention Scale Score.

**Overall and Subgroup Differences.** Significant differences in intentions related to safer sex from pretest to posttest were found among students in the MPC program ( $p < .001$ ). No significant differences were found among students in the BART program (See Figure 22 and Appendix

Tables C25-C26). No subgroup differences were found in either MPC or BART programs (See Appendix Tables C27-C28).

**Figure 21. Intentions for safer sex**

*MPC* students had a significant increase in intentions to engage in safer sex, with no change found among *BART* students



## Behaviors

This section includes a descriptive summary of self-reported behaviors at pretest and posttest for MPC and BART students. The data related to behavior changes is presented descriptively because many of the items selected to measure behavior change did not adequately distinguish between pre-program behaviors and post-program behaviors. For example, sexually active students are asked whether they used condoms the last time they had sex. It cannot be determined whether the last time the student had sex was before or after exposure to the program. Similarly, other questions use a “past 3 months” timeframe. On the posttest, this timeframe would extend prior to the beginning of the program.

Additionally, the data related to sexual behaviors often reveals inconsistencies that make the data less reliable. For example, in the data presented below on whether the student ever had sex, the percentage who responded affirmatively is lower at posttest than pretest for BART students, which is inconsistent.

The analyses for the subsequent questions about sex only included students who responded affirmatively for if they ever had sex. Since it was a paper questionnaire, a “does not apply” option was included for students who never had sex; however, some students who reported having sex chose the “does not apply” option to questions that did apply to them.

## Sexual Behaviors

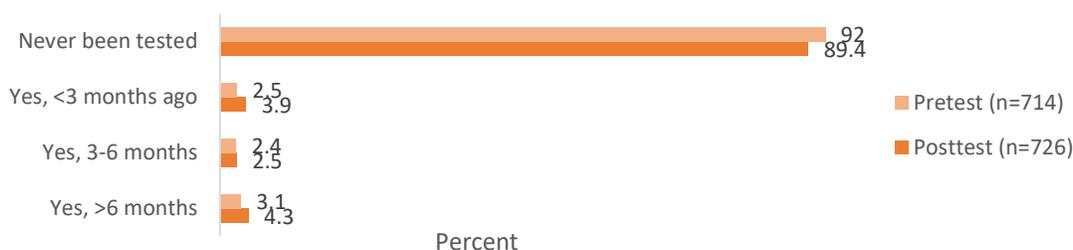
Students were asked to respond to several questions about their sexual risk and protective behaviors, including whether they had ever been tested for HIV, whether they had engaged in sexual intercourse, and whether they had engaged in risky or protective behaviors if they had had sexual intercourse (See Appendix Tables D1-D2).

### HIV Testing

Students were asked if and when they had ever been tested for HIV. Most MPC students (about 90%) and about 2/3 of BART students have never been tested for HIV at pretest and posttest. (See Figure 23 and Figure 24).

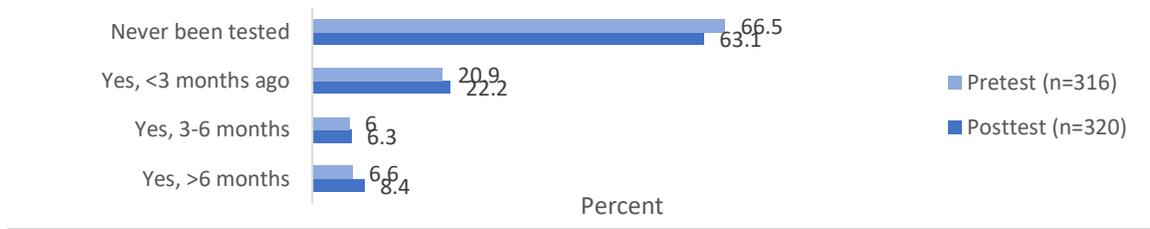
**Figure 22. MPC Student report of HIV testing**

*Most MPC students reported they have never been tested for HIV*



**Figure 23. BART Student report of HIV testing**

*Most **BART** students reported they have never been tested for HIV*



Ever had sexual intercourse

Students were asked whether they ever had sexual intercourse (See Figure 25 and Figure 26). In general, more than 3/4 of MPC students reported that they had not ever had sexual intercourse, while only about 1/2 of BART students had not ever had sexual intercourse. As mentioned in the introductory paragraph to this section, fewer BART students reported that they ever had sex at posttest than at pretest.

**Figure 24. Percent MPC students who ever had sexual intercourse**

*Most **MPC** students had not had sexual intercourse*



**Figure 25. Percent BART students who ever had sexual intercourse**

*Approximately half of **BART** students have had sexual intercourse*

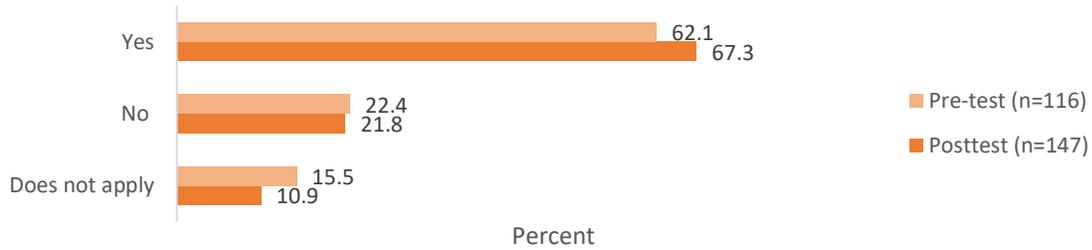


Used condoms last intercourse

Students who reported engaging in sexual intercourse were asked if they used a condom the last time they had sex, with response options of “yes,” “no,” or “does not apply” (See Figure 27 and Figure 28). The majority of students who reported having sex reported using a condom at last intercourse. BART students had a much higher percentage who selected “Does not apply” at posttest as compared to pretest.

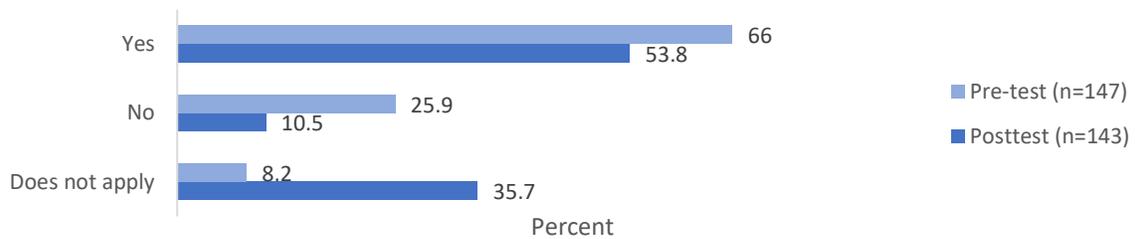
**Figure 26. MPC Percent of sexually active students who used condoms at last intercourse**

*Most sexually active MPC students reported using a condom at last intercourse*



**Figure 27. BART Percent of sexually active students who used condoms at last intercourse**

*Most sexually active BART students reported using a condom at last intercourse*



**No alcohol or drug use at last intercourse**

Students who reported ever engaging in sexual intercourse were asked if they used alcohol or drugs the last time they had sex, with response options of “yes,” “no,” or “does not apply” (See Figure 29 and Figure 30). The majority of students overall did not report using alcohol or drugs the last time they had sex. The percentage who used drugs and alcohol were higher among BART students than MPC students.

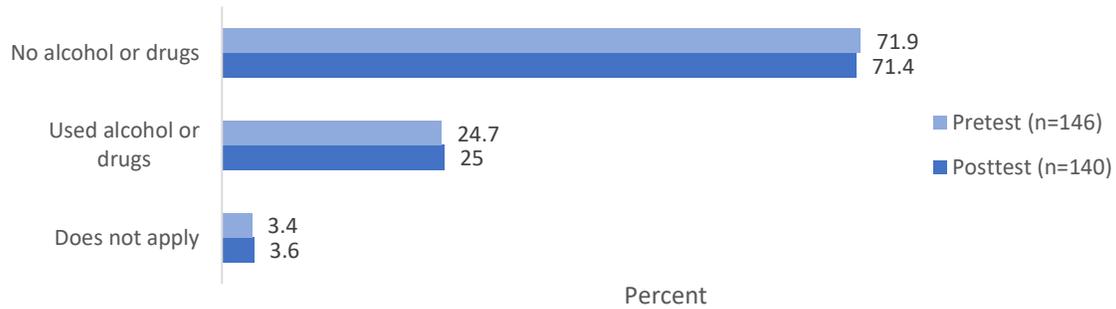
**Figure 28. MPC Sexually Active Student Use of Drugs/Alcohol During Intercourse**

*Most sexually active MPC students reported not using drugs/alcohol during intercourse*



**Figure 29. BART Sexually Active Student Use Drug and Alcohol Use During Intercourse**

About ¼ of sexually active **BART** students reported using drugs or alcohol during last intercourse

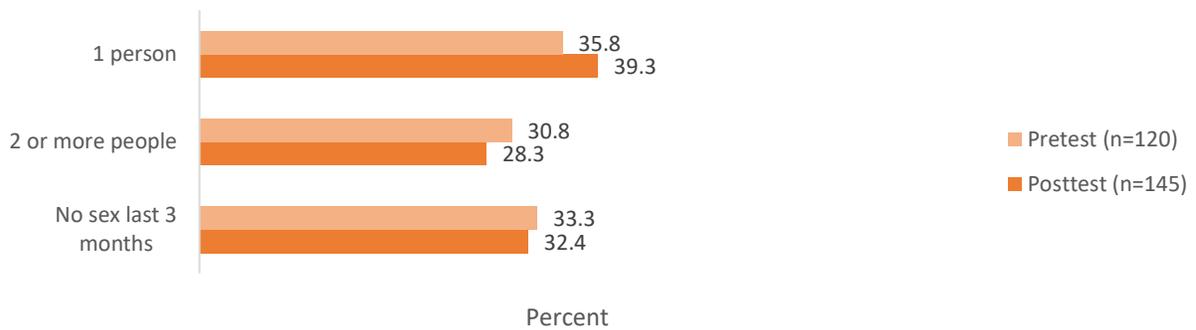


Number of sexual partners past 3 months

Students who reported ever engaging in sexual intercourse were asked how many people they had sexual intercourse with in the past 3 months (See Figure 31 and Figure 32). Response options included selecting a number of partners (1, 2, 3, 4, 5, 6+ people) or indicating that they had not had sex in the past 3 months. About 1/3 of students who ever had sexual intercourse in MPC and BART reported having two or more partners in the past three months.

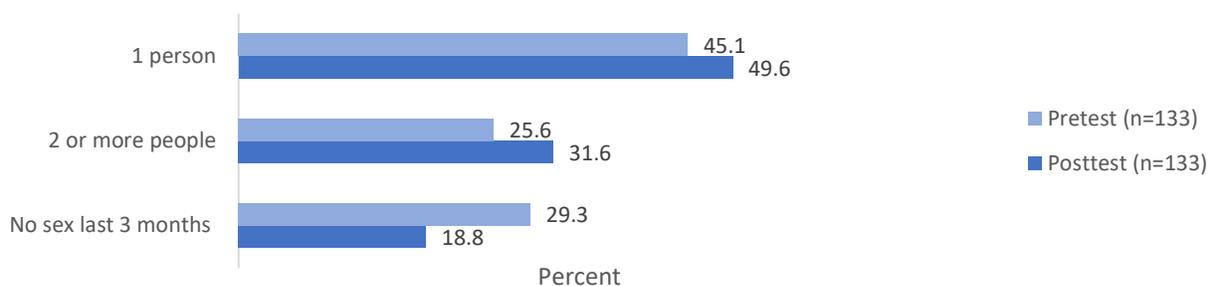
**Figure 30. MPC Student Number of Sexual Partners**

Almost a third of **MPC** students reported 2 or more sexual partners in the last 3 months



**Figure 31. BART Student Number of Sexual Partners**

Almost a third of **BART** students reported 2 or more sexual partners in the last 3 months

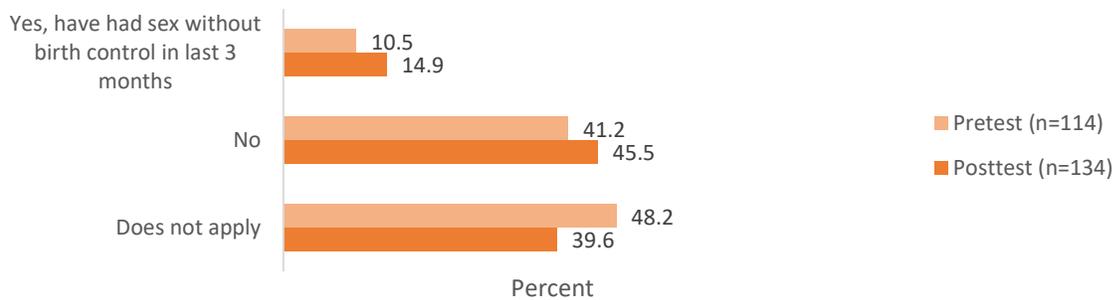


### Sexual intercourse without birth control past 3 months

Students who were sexually active were asked if they had sexual intercourse without using an effective method of birth control, even once, in the past 3 months (See Figure 33 and Figure 34). Response options included “yes,” “no,” and “does not apply.” The majority of MPC students who were sexually active who responded to this question said that they used effective methods of birth control each time they had sexual intercourse. About a quarter of sexually active BART students reported at least one sexual encounter in the past three months in which they did not use birth control.

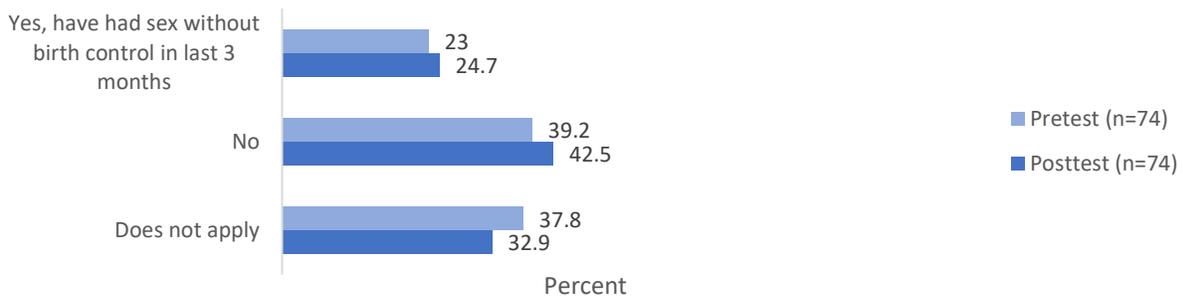
**Figure 32. MPC Student Birth Control Use**

*About 10-15% of MPC students reported having at least one sexual encounter in the last 3 months in which they did not use effective birth control methods*



**Figure 33. BART Student Birth Control Use**

*One quarter of BART students reported having at least one sexual encounter in the last three months in which they did not use effective birth control methods*



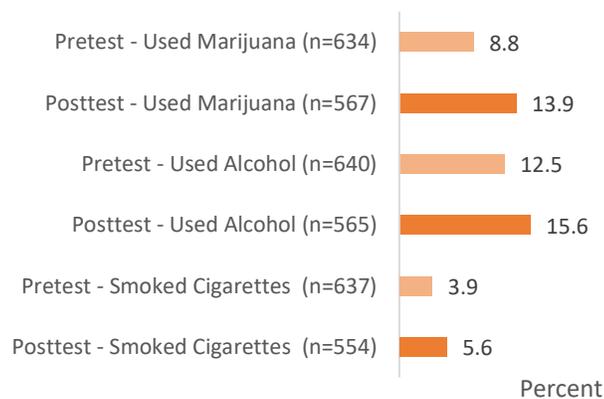
## Other behaviors

### Drug and alcohol behavior

Students were asked whether they smoked cigarettes, drank alcohol or used marijuana in the past 30 days (See Figure 35, Figure 36, and Appendix Tables D3-D4). Most students abstained from smoking and using alcohol and marijuana. However, greater percentages of students in both MPC and BART reported using alcohol or marijuana than cigarettes, with more use of alcohol and marijuana among BART students. This is consistent with national trends, where cigarette smoking has substantially declined.<sup>5</sup>

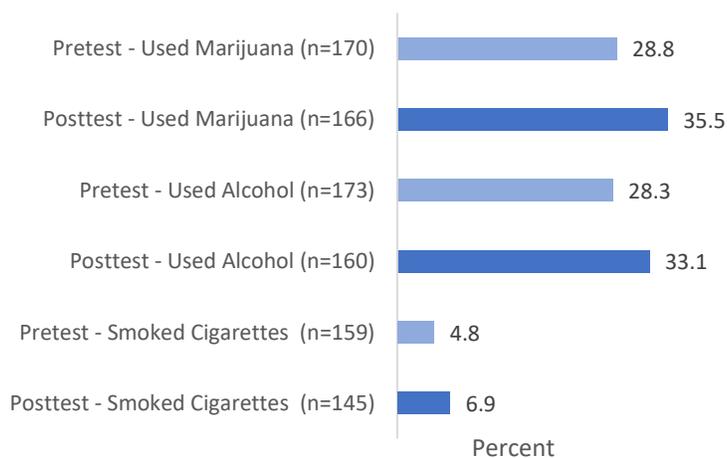
**Figure 34. MPC Student Drug and Alcohol Behaviors**

*MPC students reported more use of alcohol and marijuana than cigarettes in the past 30 days*



**Figure 35. BART Student Drug and Alcohol Behavior**

*BART students reported more use of alcohol and marijuana than cigarettes in the past 30 days*



<sup>5</sup> See Youth Risk Behavior Surveillance Survey data: <https://www.cdc.gov/healthyyouth/data/yrbs/results.htm>

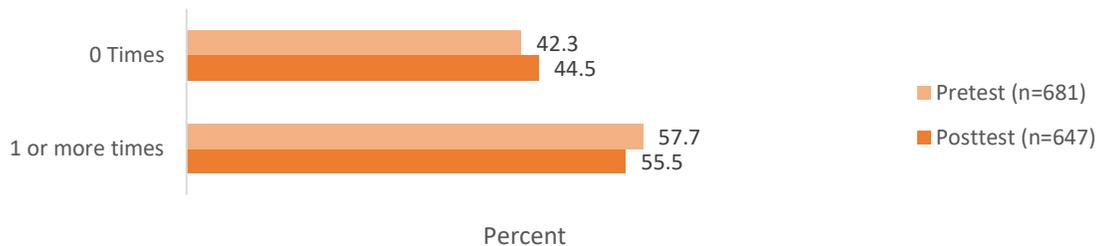
## Social Behaviors

Students were also asked how many times they were in a physical fight, whether they agree that they stay away from people who could get them in trouble, and whether there was a special adult in their life (See Appendix Tables D5-D6).

Roughly half of students reported being in at least 1 fight during the past 12 months (Figure 37 and Figure 38). Despite this, the majority of students “strongly agreed” or “agreed” that they stayed away from people who might get them in trouble (See Figure 39 and Figure 40). The majority of students also reported that they had a special adult in their life that they spend time with or talk to (See Figure 41 and Figure 42).

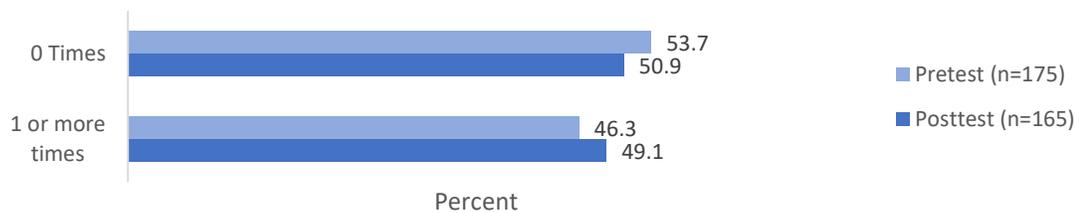
**Figure 36. MPC Student Fighting Behavior**

*More than half of all MPC students reported engaging in one or more fights in the past 12 months*



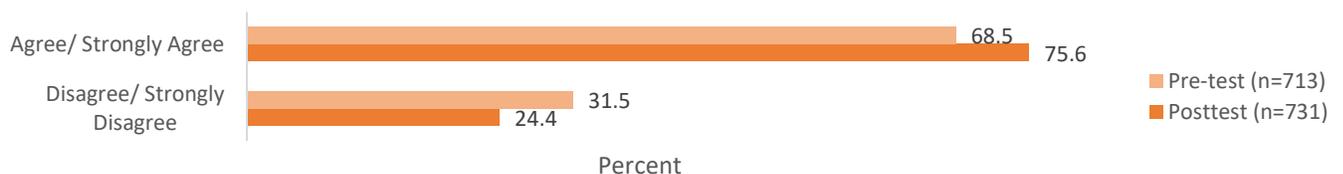
**Figure 37. BART Student Fighting Behaviors**

*Half of all BART students reported engaging in one or more fights in the past 12 months*



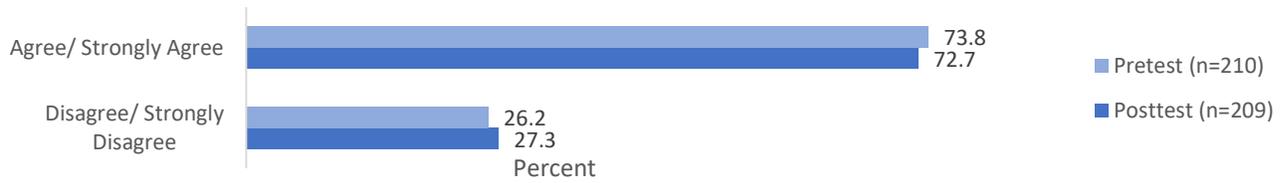
**Figure 38. MPC Student Social Behavior**

*Most MPC students agree they avoid people who get them into trouble*



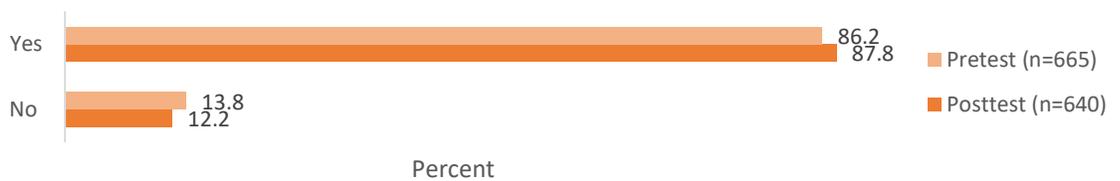
**Figure 39. BART Student Social Behavior**

*Most **BART** students agree they avoid people who get them into trouble*



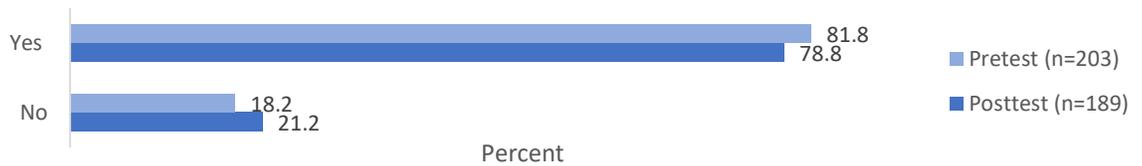
**Figure 40. MPC Student Adult Support**

*Most **MPC** students reported having a special adult to spend time with or talk to*



**Figure 41. BART Student Adult Support**

*Most **BART** students reported having a special adult to spend time with and talk to*



## Successes, Challenges, and Lessons Learned

During Program Years 1-4, staff focus groups were conducted to examine what was working well, what could be improved, and lessons learned. Findings from the focus group reports are summarized here. All focus groups were comprised of MTA staff including those involved in school programming (director, manager, and program leaders), evaluation, capacity-building efforts, and, in the first two years, MTA administrators.

During the Year 4 focus group, participants offered general feedback about key elements needed for program success for any grant-funded project, including this one. They first highlighted the need for thorough program planning as a means to improve implementation. Staff identified the importance of thinking about staffing and respective roles and responsibilities at the start, setting realistic deliverables, and establishing clear timelines for deadlines, such as IRB submissions. They noted that some aspects of the current project were never fully fleshed out, such as the co-teaching model (discussed below), and therefore were not successfully implemented.

Secondly, several participants highlighted the need for all staff to have a strong understanding of the project and the funder, whether it is VPP or any other funder. They said that typically the managers know about the grant and the staff delivers the programs, but felt that everyone would benefit from knowledge of the funder and seeing the actual grant proposal. They also recommended holding an introductory meeting between the funder and all staff to share information about the project, its goals, and planned activities.

The next sections summarize staff feedback about specific aspects of this project: the program curricula, project staffing, working with charter schools, building teacher and school capacity, and evaluation/data collection.

### The MPC and BART curricula

**Successes.** In general, facilitators enjoyed implementing the MPC and BART curricula. They appreciated that the programs were evidence-based and that the activities were engaging and generally age-appropriate. They liked that the programs were delivered over time, which allowed for strong relationships to develop with the students.

**Challenges.** Although the facilitators enjoyed teaching the curricula, they noted that some content felt dated and some areas were not covered adequately. Because of the focus on program evaluation, program facilitators were instructed to deliver the curricula as designed; however, they found that students often had questions that were outside of the day's topic area. Facilitators felt they could not adequately address these questions within the time constraints.

**Lessons Learned/Recommendations.** The program staff identified some areas for improvement in the curricula:

- Some content should be revised:
  - Statistical background information should be regularly updated
  - Some of the role-play scenarios felt dated and need to be refreshed
  - The supplemental materials (e.g. DVDs) were not multicultural or inclusive of LGBTQ students and should be updated.
  - Some content is at too high a level (e.g. information on anatomy and cell counts) and should be made more age-appropriate.
- Some content should be added:
  - Program facilitators noted that many MPC students lacked basic knowledge about puberty and recommended this be included in the curriculum
  - Both MPC and BART programs should include information on bullying and social media
  - Build in additional time for questions-and-answers.

### Schools Team Staffing

**Successes.** Focus group participants highlighted having school staff who were committed to and passionate about delivering comprehensive sexual health education programs in the charter schools. Staff were very positive about the training opportunities that were available to them throughout the program years, particularly those related to facilitation and youth development.

Although a large team of program facilitators existed in the initial years due to the presence of Public Allies/AmeriCorps, staffing was later streamlined and a core team of facilitators emerged who remained constant during the later program years. At the time of the Year 4 focus group, the team felt that they had bonded over the rewarding, yet challenging, task of delivering programs in the schools. They were able to support and provide feedback to each other and felt that they had “solidified” as a team. During the Year 4 focus group, the Schools Team was fully staffed with a director and manager who provided support and oversight.

**Challenges.** Despite the core group of program facilitators, staffing was not consistent, particularly at the management and director levels. When these upper-level positions were vacant, the School Team staff were without the support that they needed.

At one point, there was a Spanish-speaking program leader, which allowed the program to be offered in Spanish. When this staff member left, they were unable to meet the demand for Spanish-language programming.

The program facilitators also expressed concern over high deliverables in terms of the number of cohorts of students and number of students in total that they were expected to reach, noting that they had other job responsibilities outside of this program. They also had difficulty providing coverage when a program facilitator was ill.

Program staff also recognized that there were areas in which they needed additional training. In early years, some needed brush-ups on program basics (e.g. difference between bacterial and viral sexually transmitted infections), while others needed additional content outside the curriculum in order to answer questions that came up. A need identified from year to year was for classroom management techniques. Program staff also identified the need for training to be able to implement the co-teaching model for building teacher capacity.

Staff identified that burn-out was a potential problem because of the many stresses involved with delivering programs in the schools, including “taking home” the problems that students share with them.

**Lessons Learned/Recommendations.** The focus group participants offered the following recommendations:

- Ensure that staffing is adequate to meet planned milestones and revisit targets as needed. Although they did not specify what adequate staffing would be, they did identify important factors to consider. Adequate staffing depends on what other work responsibilities the program leader has outside the grant work, travel time between schools, and availability of coverage when a program leader is ill.
- Make use of facilitator down-time (e.g. before the school-year starts, school vacations) to expand training opportunities, including brown-bag lunches and having vetted resources available for independent learning.
- Create a repository for materials/resources created by facilitators that could be reused or adopted by other program facilitators.
- Provide more structured performance feedback to help facilitators improve their skills and enhance professional growth.
- Develop opportunities for staff support, recognition, mentorship, and wellness days as a way to address stress and burn-out.

### Programming in Charter Schools

**Successes.** Staff noted that over time, they had been able to develop strong relationships with school administrators and classroom teachers in the charter schools. These relationships were made easier by MTA’s recognition in the community as an important voice for sexual health education. Program staff felt that they were able to deliver important information to students and that they had a positive impact on the students as evidenced by pretest to posttest changes, their strong relationships with students, and having students seek additional information on safer sex.

**Challenges.** Program delivery in charter schools is very challenging. Program staff need to work with the Local Education Agencies at each individual charter school to develop and sign a Memorandum of Understanding (MOU) for program implementation. This often required a significant amount of time and communication since some administrators did not always believe their students needed this information.

Once the MOUs were in place, other challenges for program delivery were identified. Focus group participants identified that fitting into different school cultures can be difficult, especially around varying calendars between schools and different approaches to discipline and behavior management. Sometimes schools wanted components of the curriculum to be changed, such as not showing pictures of STIs, which could have an effect on program impact. Another issue at the schools related to scheduling conflicts, such as when schools do not provide notification if they need to alter the schedule. Attendance was an ongoing issue at some schools, which would then lead to sessions with low attendance.

Staff had an ongoing concern that the target milestones for the number of cohorts and students reached was beyond their capacity for program delivery. This was more of an issue in later program years as fewer program facilitators were available to implement the programs.

**Lessons Learned/Recommendations.** Focus group participants made the following recommendations to address challenges related to program delivery and “scaling up” program delivery in the charter schools:

- Activities related to school recruitment, engagement, and relationship-building need to begin much earlier in the summer in order to have an MOU in place for the start of the school year.
- It is beneficial to have dedicated staff members (managers) whose responsibilities included engaging with school administrators.
- Ensure that staffing is adequate to meet milestones related to program delivery.

### [Building Teacher and School Capacity](#)

**Successes.** Focus group participants understood the need and desire to build school and teacher capacity around having supportive policies around sexual health and the ability to deliver sexual health programming. In the early years of the program, MTA’s Capacity Building Team was a stronger presence in this work. They had a menu of capacity-building options that were presented to schools, including training options for teachers and staff, which helped to build relationships, establish the groundwork for additional programming, and increase teacher confidence with delivering sexual health education.

**Challenges.** While the teacher and school capacity building component would have been a strong addition to the program, these components were never fully realized. Although MTA had staff members whose roles were related to capacity building who were involved initially,

their presence diminished over time in the charter school programming. A late start during Year 1 led to challenges getting capacity building professional development programs scheduled so momentum was never gained. Staffing changes after Year 1 affected the Capacity Building Team. Focus group participants noted that each charter school operates on its own calendar so scheduling large capacity building programs was difficult. In Year 3, a full-day program was developed and scheduled; however, was ultimately cancelled due to snow and was unable to be rescheduled. In addition, staff noted that many schools wanted to ease into this kind of programming so getting schools to adopt the full menu of offerings would take time.

Another capacity-building effort was the Co-Teaching Model. In this model, the program facilitator and classroom teacher teach MPC or BART together, with the facilitator taking more of a lead role early in the program and the classroom teacher taking increasing leadership as the program continued. Again, this was never fully realized. Some attributed this to a lack of a clearly defined vision for how the co-teaching model would be implemented in the schools, (e.g. who would be trained - health teachers vs. science teacher vs. gym teachers; which sessions were to be MTA-led, which were co-led, which were teacher-led). At the first focus group, staff mentioned that a co-teaching protocol was being developed, but this never came to fruition. During the Year 2 focus group, staff noted a lack of clearly defined expectations for how to co-teach, recognizing that many of the facilitators were young and inexperienced and would need more guidance for developing co-teaching relationships. A co-teaching pilot test was conducted at one school during Year 3. Although this was implemented in five classrooms, only one classroom teacher felt confident enough to teach the curriculum at the end. This was likely affected by vacancies at the Schools Team manager and director levels at MTA, which led to inadequate preparation for the co-teaching among both MTA program staff and the charter school teachers. Expectations for program staff and teachers for co-teaching were not clearly stated and no training was provided. Program facilitators also noted that teacher turn-over in schools hindered the development of ongoing relationships with teachers, which would help them continue to develop their capacity to deliver sexual health education. During the Year 4 focus group, staff commented that schools were not interested in the co-teaching model.

Efforts related to building school capacity around sexual health education were not realized due to lack of dedicated personnel assigned to assess where schools were and to then help build capacity (e.g. what staffing was available, presence or absence of supportive policies, etc.). A tool to measure school capacity was developed during Year 1 by S&A and reviewed by staff during the Year 1 focus group. Staff felt that the tool would help identify what schools have or do not have in terms of resources, policies, and staff, which could give MTA a direction for connecting with the schools and determining which services they need. However, this tool was never implemented.

**Lessons Learned/Recommendations.** Focus group participants offered the following recommendations:

- Dedicated staff are needed to assess school capacity-building needs and build relationships with schools in order to build capacity for teachers and schools for delivering sexual health education. These staff must recognize that the relationship-building process takes time.
- Schools should be clearly informed as to the nature of the programming offered, e.g. that this is not abstinence-only programming.
- Offer introductory programs first, such as MTA’s “Let’s Talk about Sex” training designed to increase comfort and basic knowledge for teachers prior to attempts to implement a co-teaching model. Conduct a needs assessment to determine additional training needs.
- Target charter schools that belong to a network to increase the likelihood of consistent calendars that would allow many teachers to be reached during scheduled professional development days.
- Offer CEUs for teachers who participate in professional development programs.
- Provide program staff with a clear protocol and training for how to implement a co-teaching model.
- Provide schools and teachers with information about roles and responsibilities related to the co-teaching model.

## Evaluation and Data Management

**Strengths.** While the first year of data collection was challenging, ongoing staff education, attention to processes, and dedicated evaluation personnel led to improved attitudes and performance of program components related to evaluation. Program staff came to appreciate evaluation as a means of showcasing and validating the important work they were doing in the schools. Processes were streamlined where possible and the adoption of an electronic data management system was viewed favorably by all staff. In Year 2, staff were very positive when dedicated personnel were placed on the Evaluation Team to assist with management and implementation of the data collection efforts. Stronger collaboration and support between the Schools Team and the Evaluation Team were observed over time.

**Challenges.** Initially, staff did not really understand why they were being asked to collect and enter the data. Without a deep understanding of the benefits of evaluation, these components were not seen as a priority. The surveys were implemented largely using paper tools, which required manual data entry. Although deadlines for entering data existed, little oversight occurred to make sure the data entry actually happened on time.

Staff reported that students found the surveys hard to complete and were time consuming. Although the surveys were shortened after Year 1 following a scale development process, additional items related to common metrics subsequently added length back to the surveys.

**Lessons Learned/Recommendations.** The following recommendations were offered by the focus group participants:

- Have dedicated staff assigned to oversee the evaluation components and support program staff.
- Provide adequate training so staff understand why they are collecting data and the specific evaluation protocol. Staff recommended occasional booster sessions to ensure ongoing consistency. They also recommended assigning a mentor to new employees to support them as they learned the systems.
- Provide clear protocols and accountability to ensure proper data collection and management and work with program staff to ensure that requirements are realistic.
- Explore alternatives to program staff doing data entry, such as the use of electronic surveys, scannable surveys, or interns to do data entry.

## Discussion of Findings

This report summarizes the five-year evaluation findings related to the implementation and outcomes of the *Making Proud Choices* (MPC) and *Becoming a Responsible Teen* (BART) programs, which were implemented in DC charter schools. The project was initiated by Metro TeenAIDS, which merged with Whitman-Walker Health in Year 4 of the program.

Over the five years, a total of 59 MPC and 39 BART cohorts were implemented in 24 charter schools in DC, despite challenges with staffing, the merger, and IRB issues. MTA's initial intention was to provide comprehensive sexual health education to middle and high school students in DC charter schools as well as to build teacher and school capacity around comprehensive sexual health education. The implementation evaluation findings show that the latter capacity-building efforts were not fully realized. Findings from the staff focus groups attribute this to a lack of designated staff to implement these components.

Limitations to this evaluation should be mentioned. One is a reliance on self-report data; however, the use of confidential IDs instead of names on surveys was used to help reduce social desirability bias. A second limitation includes the lack of a comparison group, which was not realistic for this project; however, a comparison group could allow greater confidence that changes in students are a result of the programming and not another factor, such as maturation. Therefore, it is possible that factors outside the program influenced program outcomes. Third, in an effort to keep the pretest and posttest surveys a manageable length, all items were rated on 4-point scales, which may have limited the ability to show pretest to posttest change.

With respect to delivering MPC and BART programming, implementation data suggested that students, charter school teachers, and program facilitators were generally satisfied with the programs, with the majority of students across program years agreeing that they planned to use something they learned in the program to make a healthy decision. Classroom teachers and program facilitators both agreed that students were engaged most of the time and grasped the objectives of the activities.

The implementation data also provided information about facilitator proficiency and program fidelity. Over time, facilitator proficiency ratings increased and some differential effects of the program were found for students in the later years of the program as compared to the early years (discussed further below). Facilitators did report making some modifications to the sessions, including omitting or shortening activities, most often due to a lack of time. This was seen more in BART programs, which may have had an impact on BART outcomes.

The challenges of implementing programs in the schools cannot be underestimated. The facilitators must be flexible and adaptable as they face schedule changes and session cancellations, classroom changes, interruptions, differing levels of support by classroom teachers, and the need to manage classroom behavior. In addition, these programs were

conducted across charter schools, with differing school cultures and student management practices.

The outcome evaluation was conducted to determine if the programming had an effect on knowledge, attitudes, self-efficacy, and intentions of students who participated in the program. Overall, MPC students displayed significant pretest to posttest changes in the desired direction in all areas. Large program effects were found for changes in knowledge and medium effects were found for attitudes about condoms and condom self-efficacy. Small-to-medium effects were found for attitudes about unprotected sex, refusal self-efficacy, and intentions.

For the BART program, significant changes were found in knowledge (a large effect), condom self-efficacy (small effect) and for risky behavior refusal self-efficacy (small effect). In some of the program years, there appeared to be a ceiling effect, in which BART students had relatively high pretest scores, leaving little room for improvement. The BART programs also had lower percentages of matched data, which could have had an effect on findings, albeit in unknown ways, and as mentioned above, more program modifications were reported, which could impact outcomes.

Previous research conducted on the MPC and BART programs, as well as on the Be Proud! Be Responsible! program on which MPC was based, found positive increases in program participants' knowledge, attitudes, self-efficacy, and intentions related to abstinence and safer sex as compared to the control group.<sup>6,7,8</sup> These positive increases in behavioral antecedents are generally consistent with findings from the present study. These studies also included longer-term follow-up periods, which found more consistent condom use and less unprotected sex at the follow-up for program participants as compared to the control group. The present research included only an immediate posttest, which could not examine actual behavior changes.

A few subgroup differences in program effects were found. With respect to program year, BART students in Year 4-5 and Year 6 had a significant increase in negative attitudes toward unprotected sex and increased condom self-efficacy, which were not found for earlier years. In addition, students in year 4-5 also had increased risky behavior refusal self-efficacy, which was not found in other years. These findings might reflect stronger program implementation by experienced facilitators in the later years of the program.

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<sup>6</sup> Jemmott, J.B., Jemmott III, L.S., & Fong, G. (1998). Abstinence and Safer Sex HIV risk-reduction interventions for African-American adolescents: A randomized control trial. *Journal of American Medical Association (JAMA)*, 279, 1529-1536. This information is summarized at ETR Associates' Resource Center for Adolescent Pregnancy Prevention: <http://www.etr.org/recapp/index.cfm?fuseaction=pages.ebpDetail&PageID=128>

<sup>7</sup> Janet S. St. Lawrence, Ted L. Brasfield, Aaron Shirley, Kennis W. Jefferson, Edna Alleyne, and Robert E. O'Bannon III. *Special Populations: Cognitive-Behavioral Intervention to Reduce African American Adolescents' Risk for HIV Infection*. *Journal of Consulting and Clinical Psychology*, 1995, Vol.63, No. 2, pp: 221-237.

<sup>8</sup> Jemmott, J.B., Jemmott, L.S., & Fong, G.T. (1998). Abstinence and safer sex HIV risk-reduction interventions for African American adolescents. *Journal of the American Medical Association*, 279(19), 1529-1536.

In some cases, significant subgroup differences were found at pretest, with the differences reduced or eliminated by posttest. These differences were found by gender as well as among students who had not had sex before as compared to those who reported having sex. Gender differences were found for condom self-efficacy at pretest, with girls in MPC and BART reporting less condom self-efficacy than boys. While condom self-efficacy increased significantly for girls in both MPC and BART, girls' self-efficacy remained lower than boys for girls in MPC and increased to the same level as the boys in BART. BART students who had not had sex at pretest had less knowledge and lower condom self-efficacy before the program than students who had reported having ever had sex. These students increased their knowledge and condom self-efficacy to the same levels as the students who had engaged in sex. Taken together, these findings suggest that the program benefitted some subgroups who had the most to gain from the program.

The last difference involved subgroups that were similar at pretest, but who showed differential benefit from the program. All BART students significantly increased knowledge as a result of the program; however, the increase was greater for non-black students as compared to black students. For BART students, risky behavior refusal self-efficacy increased for non-black students only, with no change for black students. It is not clear why this differential effect occurred.

According to the descriptive posttest analyses, about 20% of the middle school students and almost half of the high school students reported that they have had sex. Some reported additional risky behaviors, such as more than one partner, inconsistent birth control, and/or having used alcohol or drugs the last time they had sex. These findings underscore the ongoing need for comprehensive sexual health education for youth. The qualitative findings offer suggestions for areas in which these curricula can be improved (e.g. addition of puberty information for MPC students) and lessons learned from this programming so that sexual health education programs can have greater impact in the future.